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# American Mutual Seed Co.

HEADQUARTERS FOR

**GRASS and FIELD SEEDS**

SELLING AT LOWEST WHOLESALE PRICES  
OUR CUSTOMERS SHARE IN THE PROFITS

43<sup>RD</sup>. & ROBEY STS.  
CHICAGO. ILLINOIS

**SEED GUIDE-SEASON 1918**



ILLINOIS IDEAL



CANE PRODUCES BIG CROPS OF FORAGE



ILLINOIS SPECIAL



IOWA 103 THE CHAMPION EARLY OATS MAKING 100 BU. PER ACRE

A.B.M. CO.

OUR SEEDS SAVE THE BUYER MONEY AND PRODUCE BIGGER AND BETTER CROPS



# Headquarters for Field and Grass Seeds



Located as we are in the Greatest Terminal Market in the World, we are in a position to secure the cream of the crop and get it at a price with which no competitor can compete. Why pay two profits when you can secure the seed direct from us.

## How Our Seed Is Sold

All of our seed is sold subject to State and National test, and every lot is sampled and subjected to a germination and purity test before it is sent out. Here is another feature in connection with our Grass Seed Department where we are able to serve you in a way that other seed firms are not in a position to handle, for our long experience in the seed business and our scientific education enables us to make a scientific analysis of every lot of seed we handle, so we know just what we are sending our customers.

We do not feel that we can overestimate the importance of seed testing, for upon this one thing alone often hinges the difference between a bumper crop and an absolute failure, for unless your seed is strong you cannot expect to grow healthy, vigorous plants. Therefore, we regard our seed testing methods as one of our strongest recommendations for securing your Grass Seed Orders.

## Our Facilities the Best

We have the most modern and up-to-date cleaning and grading machinery that money will buy. This improved machinery not only takes out the dirt and weed seed but also removes the light, small and inferior seeds, thereby not only preventing you from inoculating your farm with noxious weeds and paying a high price for a worthless lot of dirt, but also makes it possible for you to secure seed that will produce an even stand of strong, vigorous plants. Our plant is also equipped with seed testing machines, and no lot of seed goes out of our wareroom until we have made a germination test of it.

## Our Prices the Most Reasonable

We depend upon a small profit from a large volume of business rather than a large profit from a small volume, and because of having this large volume of business, we are able to make a big saving for you.

## Size of Orders Reduces Price

We have a large trade among Crop Improvement Associations, Clubs, Granges and other agricultural organizations, and the size of these orders and the equipment at our command for handling these large orders, makes it possible for us to offer you the highest grades of seed at the lowest possible price.

## Order Early

Owing to the uncertainty of the times we wish to urge upon you to order early. Your seed purchase is too important to take any chances with. Don't risk delaying until the supply of some seeds that are a short crop is exhausted. Don't take chances of not having them on time because of railroad strikes or other delays that might occur in transportation during these strenuous times.



# What Well Known Banks and Others That Are High in Positions of Responsibility Say as to Our Financial Ability, Character and Honesty

Letter from the Editor of The Homestead, one of the leading agricultural papers of the United States.

Mr. J. F. Summers, Chicago, Ill.:

Dear Sir:—I understand that you are associated with the American Mutual Seed Company, of Chicago. I have enjoyed a personal acquaintance not only with yourself, but also with all of your associates, for nearly a quarter of a century. My business relations with the members of your company lead me to believe that the American Mutual Seed Company will very soon endear itself to its customers. I feel certain that Teddy's so-called "square deal" will be given to every one of your customers, as this is the principle upon which you and your associates have been conducting business since we first became acquainted.

JAMES M. PIERCE.

Iowa State College, Agriculture and Mechanic Arts.  
Division of Agriculture.

To Whom It May Concern:

I have personally known Mr. J. F. Summers for a period of about ten years, and have been associated with him as a member of the State Board of Agriculture, and while he was a student in the Iowa State College.

I take pleasure in certifying that I have found him to be, in every way, capable, trustworthy and reliable, and I have entire faith in his business ability and integrity.

C. F. CURTIS, Dean.

The First National Bank.

To Whom It May Concern:

It is with great pleasure that I am allowed to write these few words of commendation for Mr. J. F. Summers, Secretary and General Manager of the American Mutual Seed Company of Chicago. I have watched Mr. Summers grow from boyhood to manhood in this community and am free to state that he has made good in more ways than one. Mr. Summers has the practical and first hand knowledge, so essential in order to make a success of the seed business. Furthermore, Mr. Summers' connection with this firm will insure to the customer prompt and efficient service, a fulfillment of their promises and best of all, a square deal to all their patrons. Knowing that you will find Mr. Summers to be a man in whom you can put your trust, I beg to remain,

JAMES J. WILSON, Cashier.

This is a letter from the Assistant Secretary of Agriculture, and assures of expert knowledge along the lines of better seeds.

Washington, October 19, 1915.

To Whom It May Concern:

I take pleasure in stating that I have known Mr. J. F. Summers for a number of years, having been closely associated with him in farming and agricultural operations of various kinds and on a large scale. Mr. Summers was born and raised on a farm, is a graduate of Ames Agricultural College, has for years been a member of the Iowa State Board of Agriculture, and has taken a prominent part in the managing of the Iowa State Fair. For several years he devoted the major portion of his time to breeding and buying and selling high-class tested seed. He also managed between 2,000 and 3,000 acres of land for me, and brought this land up to a high state of fertility and productivity during the few years that he had it in charge. He is one of the best equipped practical agriculturists in the Middle West, being especially well qualified as a seed expert. Mr. Summers is a high-class man in every respect.

CARL VROOMAN.

Central Manufacturing District Bank.

To Whom It May Concern:

We take pleasure in stating that the American Mutual Seed Company are valued depositors of this bank. We consider them thoroughly responsible and amply able to fill orders entrusted to them in a satisfactory way. We are sure that anyone dealing with this company will be treated in a courteous, business-like manner.

Yours very truly,

FRANK L. WEBB, Cashier.

Letter from Wallace's Farmer, Des Moines, Ia., a leading agricultural publication in the United States:

Mr. J. F. Summers, Malvern, Iowa:

Dear Sir:—We note with interest the progress of your seed company, with headquarters at Chicago. The need for strictly highclass agricultural seed seems to be growing constantly and the supply of such seed should be a promising field to me who, like yourself, have given much attention to better agricultural methods. Hoping that your success may meet your expectations, we are,

Very truly,

H. C. WALLACE, Editor.

## An Unconditional Guarantee with Every Order

Here is an Absolute Guarantee to satisfy you completely, or refund your money and all of the freight charges you have paid on seeds from this firm.



We send you our signed guarantee with every shipment, good for the full amount of your order. You are protected when you buy from this firm.

**A Guarantee Like This Is Proof of Fair Trading. We Could Not Give a Signed Contract to Satisfy You, If our Goods Were Not Reliable.**

We always endeavor to send our customers the best seed it is possible to furnish. We guarantee—unconditionally—that our seeds are of high germination, honest weight and honest value. If at any time within thirty days of receipt of goods, you are not satisfied for any reason, you may return the goods to us and we will refund your money and the freight charges you paid. No questions asked. We are

behind every penny's worth of seeds we sell and it must please you or we want it back. Remember we guarantee, high germination, honest weight and honest value. A signed guarantee goes with every shipment we make to you. It is good for the full amount of your order.

Can anything be more fair?



## A Few Moments with the Secretary

Dear Friends:

We want you to know that we have appreciated the business you have favored us with the past year, and to thank you for the kind words you have spoken to your friends and neighbors about us. We hope that the service we have given you has pleased you, for we have tried to fill your orders honestly and carefully, and while we may have made some mistakes in some instances you, no doubt, realize that none of us are perfect, and we think that you have found us always ready and willing to correct any mistakes which might have been made and we trust that you will not only have a larger order for us this year than you did last, but that you will be instrumental in securing a greater number of customers for us.

The past year was not the most pleasant one, either from the standpoint of the seedsman or the customer, as many varieties were a short crop. The demand being exceedingly heavy forced us to disappoint some customers who ordered after the crop available had been sold.

All this, we feel, friends, we will be able to eliminate this year, and we have made preparations to take care of you as you never have been taken care of for your seed supply. We have gathered together an enormous stock that has been carefully selected, cleaned, graded and tested, and we are going to sell you this stock on a "live and let live" basis.

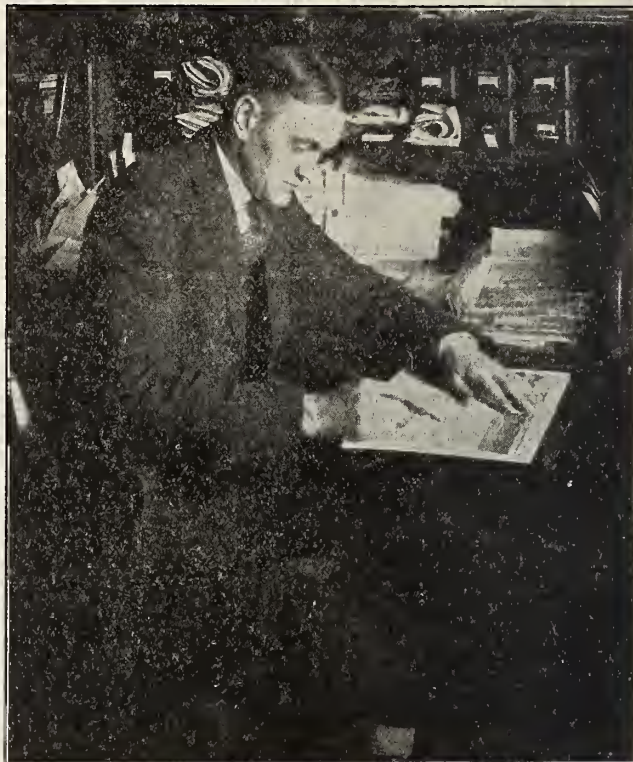
Our Green List that we are enclosing is based on the current market and we protect you on the price. We do not publish our price months ahead as many do, but give you the advantage of the market at all times. We try to maintain our prices for thirty days at a time, and will mail you a new price list promptly at the expiration of this time.

Making a specialty as we do of Field and Grass Seeds, makes it possible for us to give your seed requirements, in this the most important branch of the farmers' business, better attention than those who devote the major portion of their time to other classes of seed, expending all our energy on Field and Grass seeds to furnish you those varieties that will give you the best results in your locality and to procure them for you at much less money than those who do not give this branch of their business their undivided attention.

We know that it is not necessary for us to tell you old customers who we are and how we can save you money, or that we can sell you the best seed for the least money that can be secured. There are some who have not favored us with an order, and to these new customers we wish to say that we want you to get acquainted with this firm. We want you to get the real facts about us so that you will not hesitate to give us an opportunity of sending you the best and highest germinating seeds that can be secured for the least money, for we feel sure that if given this opportunity of demonstrating our square deal method of selling seeds that you will become one of our many satisfied customers.

We want you to read over carefully the references on the preceding pages, written by men of high standing throughout the United States, for we believe that we are furnishing you the strongest personal references ever furnished by any seedsmen, and it is with no little pride, we can assure you, that we are placing before you these letters of commendation from not only some of the strongest and best known banking institutions in the United States, but from some of the foremost agricultural men of the nation. Another list of recommendations that we feel should appeal to every man who contemplates purchasing seed is the testimonials of a few of the many satisfied customers who always send us their orders for these are the men that know what results our seeds will bring.

After reading over "What Your Neighbors Say About Us," and what these leading agricultural men and reliable banks have to say regarding our reliability, we want you to send us your seed order. We want to prove to you that we furnish the best, the purest, the most reliable, the highest germinating seed upon the market, and save you money on every bushel. We are here to serve you and you will find us ever striving to place before you only those crops



J. F. Summers

that make the farm pay better. We do not catalog freaks, neither do we use overdrawn illustrations, but place before you photographic reproductions of the different crops and give you an exact and true description of the same. We want your business and co-operation, you will find it to your mutual advantage to make us your seedsmen.

We want to call your special attention to our Profit Sharing Plan of selling our seeds, as this method of selling seeds is working out exceptionally well both from our standpoint and the standpoint of the customer. It is permitting us to work on a closer margin because it enables us to secure a large volume of new business at a minimum cost for advertising; thereby not only enabling us to furnish the best seed for the least money, but allowing us to share our profits with our customers instead of having to pay them out for advertising space. Do not fail to read carefully our Profit Sharing Plan, as it is of vital interest to every seed buyer and should certainly interest you.

Friends, we want your business and we feel that no other firm can offer you the inducements in quality of seed, prompt shipments, low freight rates and courteous treatment that you can secure from the AMERICAN MUTUAL SEED CO., and we feel that you certainly cannot afford to not avail yourself of an opportunity to purchase your seeds from a company who not only offers you these advantages, but who will sell your seeds to you on a mutual Profit Sharing basis.

We sincerely believe that this Seed Guide contains a valuable message for every broad-minded person interested in better agricultural conditions, and that it will not only make the farm pay better, but will create an incentive in the mind of every reader to accomplish greater things in the agricultural world.

Thanking you for your past favors, and hoping that we may be favored with your hearty co-operation during the season and that you may be blessed with prosperity, long and useful life and a happy, prosperous farmer's home, we are,

Sincerely yours,  
J. F. SUMMERS, Sec'y.



\$100

No. \_\_\_\_\_

\$100

*Profit-Sharing Certificate*  
OF THE  
**AMERICAN MUTUAL SEED CO.**  
of Chicago, Illinois

*This is to Certify that* \_\_\_\_\_

of \_\_\_\_\_ has purchased seed to the  
amount of One Hundred Dollars (\$100.00) from the

**American Mutual Seed Company of Chicago**

and that he, his heirs or assigns, is thereby entitled to participate in such cash dividend of the American Mutual Seed Co., as is declared at the close of its business year, July 1st \_\_\_\_\_.

The basis of this participation shall be that the holder of each \$100.00 Profit Sharing Certificate shall receive the same proportion of said cash dividend as the holder of each \$100.00 share of stock in the American Mutual Seed Co.

**AMERICAN MUTUAL SEED CO.**

By \_\_\_\_\_

## American Mutual Seed Co. Founded on a Profit-sharing Basis

Every \$100.00 invested in seeds entitles the buyer to share in the cash dividend to be paid from the profits of the year's business the same as the stockholders who have invested \$100.00 in cash.

This profit-sharing plan makes every customer an interested party in the success and welfare of the company. Our customers are constantly making sales and sending new orders to us and when the buyers co-operate with the seller it reduces the cost of selling and permits handling all articles on closer margins.

Our plan of selling seeds direct to the farmer on a co-operative basis places us in a position to undersell our competitors, and by making very close prices brings a big volume of business at a minimum selling cost.

When handling a large number of orders, we can cut down the expenses and give the buyer the benefit of the saving, which will be appreciated, and the fact that the buyer is enabled to save money is the best advertisement we can make for new business. A wide-awake customer who buys from us is a living advertisement in his neighborhood and new business is the result.

### Why Our Success is so Great

Since every customer is a booster for our seeds and financially interested in our success, it brings a big volume of new business that does not cost us advertising to get. It is expensive to get new business and every order secured in this manner costs money. We would rather give this money in the form of dividends to our customers than to pay it out for other forms of advertising. You are in a position to do us much good and we are likewise in position to reciprocate and are willing to divide with you. That's fair, isn't it?

Our method of selling is founded on the right principles and no one can hope to offer equal values selling seeds in the old manner where a long profit was necessarily added to cover the extra expense of getting new business and of extra labor in handling small orders. Our orders average around \$20.00, while some seed houses average less than \$2.00. We give you these inside figures so that you may better understand what we are explaining and so you can see wherein it is much more economical to handle one large order than ten small ones. You may wonder why our orders run so large. This is due to our handling field and grass seeds exclusively, and to our selling to many of the largest and most influential farmers, and to the fact that every buyer of \$100.00 worth of seed gets a profit sharing certificate. We want you to understand thor-

oughly our way of handling this business and know why we sell seeds for less money. If you did not fully understand you might be skeptical about the quality, but we back every order with one of our Absolute Guarantees which insures your getting your money's worth or your money back. We attach one of these guarantees to every order that we ship out. It is not catalog selling talk, but a bona-fide signed and written guarantee is pinned to every Bill of Lading that goes out. We protect you on your purchase. We ship the seeds subject to your approval and leave you to be the judge of their value. If you do not feel after getting them home and testing them that they are big value, ship them back and we refund your money. "We are not satisfied unless you are."

### Our Co-operative Profit-Sharing Plan

We issue a profit-sharing certificate of \$100.00 each, to every purchaser of \$100.00 worth of seeds. Read the terms and exact meaning of this certificate. You get the lowest cash prices on the seeds you purchase and this profit-sharing certificate gives you the rights and privileges to a share of the earnings of the company at the close of the year.

This enables you to share in the profits and yet get the best seeds at a low price. You do not have to purchase stock in the company to finance it or risk a penny. By just purchasing \$100.00 worth of seeds, you get a certificate that entitles you to the same dividend as a share of the company's stock.

This company is well financed, and by men of the highest character, who believe in giving the farmer a square deal and their just dues. We do not ask you to buy stock by paying out money, but just seeds such as you need to the amount of \$100.00 and you get a profit-sharing certificate.

If you do not want to buy that much seed yourself, get some of your neighbors to go in with you and make up an order to that amount. It does not take long to make up an order of grass seeds and field seeds to the amount of \$100.00. Large club orders are what we want, Grange Societies, Mutual Co-operative Associations, Farmers' Institute and neighborhood business. We want you to save money by buying from us, besides sharing the profit of this gigantic seed business. Don't fail to give us a chance to show how very cheap we sell the very best and purest seed by sending for our samples and club quotations, and an opportunity to get this profit-sharing stock. You are sure of the best quality when you buy from us, also the lowest possible price and an opportunity to share in the profits.





Our Seeds Are Sown in Every State in the Union.

## Why We Are Located at Chicago and How We Are Situated to Do Business

Above we are giving you a rough sketch of the great agricultural section that we furnish seeds to. We want you to know that we are big people and have the facilities for carrying on the biggest field and grass seed business, selling direct to the farmer in the world. This is no dream or imagination of some visionary person, but is a reality made of brick, stone, cement, steel and reinforced concrete, and is fireproof.

It may be of interest to you to know why we are located in Chicago, in preference to any other point or country town.

There are several reasons, any one of which would be sufficient in itself to justify us in choosing Chicago. First of all: Chicago is centrally located, being in the center of all of the seed buyers all over the United States. We can serve a larger number of customers from this point than any other place in the same radius and give them quicker service, as well as cheaper freight rates.

The most important point for any large wholesale or mail order house to consider is the freight rates, shipping facilities and nearness to production. We have all of these advantages in Chicago, as railroads always make lower rates for the larger cities and a business located in a small town has this handicap to contend with.

Our shipping facilities cannot be surpassed. Right across from the above building is the Union Freight Depot of all trunk lines leaving Chicago. Eighteen railroad companies with through freight lines all over the world right at our door, local freight shipments are made up every day and started out at 12 o'clock from the Union Freight Depot, and we are so close we do not even have to load our shipments, but run them across on hand trucks. We do not have to use a team in hauling any of our shipments to any depot, thus we do not have any drayage expense, which means a big saving to you. These conveniences, without doubt, gives us superior shipping facilities to those of any other concern, and we are able to give you quicker service than any others can give.

Chicago is the greatest corn and oats market in the United States, proving that it is located nearer the center of producing sections. It is also the largest timothy seed market in the world, and often handles more clover than Toledo. It is unquestionably the largest grass seed market in the United States and without a doubt the greatest distributing point. It has the largest wholesale seed houses in the world, and this business could never have been built up as it is if the location was not right. We located here so that we could build up the largest seed business in the world selling exclusively to the farmer.

Chicago is a good point for the dealers to buy their seed from and is equally good for the farmer. We can secure better values on account of the location and can give our customers the benefit of them, having less freight rate, having less transfer, being located on all of the main lines so that with their connections we can ship to nearly every point in the United States, with only one freight charge and the minimum number of transfers. These are points that you should take into consideration, for every saving we make on freight is a benefit to our customer.

If a customer in New York state wants to buy 100 pounds of timothy seed from Chicago the freight would be about 35 cents and it would take about five days for it to arrive. If this same party sent to an Iowa or Nebraska seed house for this same timothy, it would double the cost and the freight would be 40 cents more and it would take two weeks longer to get it. Now if a customer at Waterloo, Iowa, wanted 100 pounds of timothy, and sent to Chicago, our price would be less and the freight 40 cents on 100 pounds, and take three days to get it. If this same party ordered from Missouri or Southern Iowa the freight would be fully as much, besides it would have to go over two roads, taking about ten days to arrive.

This quick service is undoubtedly a good advantage, not only to you but to us; it lessens the cost to us, which saves it to you. It enables you to get your seeds quickly after a late spring. While we do not advise waiting until the last minute to send your order, we know that it is sometimes necessary, as conditions are such that you sometimes change your mind about planting or sowing some field or else something happens to your stand and you have to put in a rush order to take the place of the crop destroyed, and it is certainly worth a great deal at such a time to receive your order quickly.

These comparisons are actual facts based on the past movements of freight and go to show the advantages to the buyer of buying from a railroad center rather than from a town isolated on one or two roads, where 90 per cent of the shipments must go through some transfer point, which causes a delay of from three to five days in transit. If you have ordered seeds when in a hurry you will appreciate these facts, and quite agree with us that it is economy to patronize that firm which gives you the quicker service and lower freight rates, as the time of planting a crop is of too much importance to risk sending for seeds where you do not know when they will arrive. So you see we have selected our location so as to give service and deliver out shipments with the least possible cost to the customer.





Harvesting New Marquis Wheat in the Great Northwest.

## Expert Knowledge of the Seed Business

This company possesses expert knowledge of the seed business which is of unlimited value to you. Our early life on the farm, an agricultural course in the best college, and actual farm operations, crop growing, seed testing, seed growing, all this has been of material benefit to us. This technical knowledge has enabled us to dig into the scientific researches of plant growth and seed formations, while the experience in the school of hard knocks on the farm, and in the actual business of raising, buying and selling seeds in a great many sections of the country has given us inside information and experience that is of vast help to us and benefit to you.

We assist you to make a success in raising crops by using our seeds in a judicious manner. Our knowledge enables us to go to those localities where the best and strongest germinating seeds are grown and buy in such quantities that they can be bought at the most reasonable figure. With our wide acquaintance and knowledge we can secure seeds of the best varieties and with our superior facilities for cleaning and grading, can furnish you a quality that for purity, germination and adaptation to your conditions cannot be excelled.

We want to prove to you that we are experts in the seed business and this is the way we propose to do it. Ask for samples of seed, such as you are in the market for, telling us the conditions of your soil and climate and what you want the crop for, and such information as will enable us to select seed for your particular needs. We will send samples for your inspection and make prices which will astonish you. This sample will be identical to the seed we fill your order with and it represents the seed which you are to receive, just the same as a sample of a piece of cloth sent you by some mail order merchandise house to select a suit of clothes from. We would give you such information and answer such questions as would enable you to get the best results from your farming operations.

What would be the proof of our possessions of expert knowledge of the seed business? From the fact that we could offer you such a splendid quality of seed at a low price. We would astonish you with our prices and qualities when you would compare them with others and your town merchant. Send to us and get samples and prices and allow us to demonstrate to you what an enormous amount of money we can save you on your seed purchases. We are not only in a position to make the lowest prices, but in a position to furnish you the best seeds. Our motto is, "We are not satisfied unless you are."

The buying of seeds are the most important purchases of a farmer. Not only does he want to save money but he wants seeds that are pure, free from bad weeds and other impurities, but seeds from a high yielding strain of the variety which he wishes to grow and seed especially adapted to his soil and climatic conditions. We are able to furnish him such seeds, simply because of the fact that we are expert farmers and seedsmen, possessing the equipment and knowledge to do these things for the grower.

We have gained expert knowledge and the secrets of the seed business which enables us to serve you better and give you the best quality of seeds that are adapted to your conditions at lower prices than others, which will enable us to build up the biggest retail field seed business in the world. We want your business and know that it will be to your interest to make us your seedsmen.

## Field and Grass Seed Specialists

We are specializing in field seeds; the age of "Jack of all Trades" is past and now the firm that makes a specialty of one particular line is the one that gives the "best value for the least money." Doctors have thrown their whole time and energies in studying one particular organ of the human body, and lawyers have devoted all of their study to one particular branch of law, thereby necessarily obtaining the highest proficiency in their chosen professions; and so it is in the seed business, for the man that devotes his entire time and specializes in the study of field and grass seeds until he becomes efficient is bound to give better service and at a lower cost to the farmer than the one who generalizes and handles a lot of other things besides field and grass seeds.

While we know the general seed business from "A to Z" and have conducted extensive trial grounds in garden and flower as well as field seeds, we have come to realize the fact that the man who specializes is the man who gives the service, and we have of late been giving special attention to field and more especially to grass seeds, and we are in a position to furnish you the best that grows.

We are specialists in field seeds and especially strong in grass seeds. We have made this branch of the business a close study and have had many years of experience in growing grains and grasses on the farm and years of experience in buying, and know where they grow to the highest state of perfection. We know seed values and the prices they should be bought for, so we can give you the advantage of the lowest market price. We know the best and largest growers. We grow a great deal of seed ourselves in different parts of the country where seeds develop best and produce the highest quality.

Did you ever stop to consider the vast amount of grain and pasture seeded and the enormous quantities of grain and grass seeds raised each year? It means billions of dollars worth each year, all raised from seed. Then how important is the matter of your seed purchase. A farmer on a 160 acre farm will probably average a little more than a dollar's worth of garden seeds, while he will on an average spend from \$25.00 to \$75.00 per year on grass and grain seeds. Then why should this not be worthy of devoting special study and employing the best experts in this line and becoming so familiar with the growing, buying and handling of high-grade, tested, re-cleaned field and grass seeds that we can make better prices and serve you better than those that make grain and grass seeds only a very small part of their business. Just look over the seed catalogues that are coming to your home this year and count the pages that they devote to garden and flower seed, and how much to grain and grass seed. From 1/4 to 1-10 is all you will find is devoted to field seeds, the foundation of the wealth of the nation. Our seed book is an exclusive grain and grass seed catalogue, not only placing before you the best lots of field and grass seed ever offered for the least money, but bringing into your home a book filled with expert information on the soil requirements, seeding, tillage and harvesting of the principle farm crops by the leading farm crop experts in the business. We claim the proud distinction of issuing the first mail order exclusive field and grass seed catalogue in the United States, which will enable you to buy seeds that are purer, stronger in germination and better adapted to your conditions, and for less money. All we ask is a chance to prove it. Give us a trial order. Be friendly anyway, and write us.



## Truth and Actual Facts About the Seed Business

The men associated together as the American Mutual Seed Company are practical, experienced farmers and seedsmen, have had many years of experience in the handling, growing and marketing of all kinds of seeds, and I think perhaps can tell you something about the seed business that all of you do not know.

A great many seedsmen would have you believe that they grow all of the seeds which they handle, but the truth of the matter is the growing of seeds is a business within itself. Seed growing is a risky business and can only be carried on where conditions are not only the most favorable for the production of the crop, but for the harvesting of it as well, and a great bulk of the seed is grown by growers who make it a business and are located under such favorable conditions that they cannot only produce the greatest yields of the highest quality of seed, but their climatic conditions are such that they can harvest them to the best advantage.

Labor is another big item in the production of seeds, especially with a crop that requires a great deal of hand labor, and it would be folly for a seedsman in the Central States to try to compete with the grower who has the climate and the cheap labor to produce high quality stock. When you read a statement in a seed catalogue that they grow all of the seeds they sell it is time for you to drop that catalogue and pick up another and see if you cannot find more reliable information.

Here is the situation in a nut shell: It is not the fact that you grow your own seeds that makes them better, but the fact that you know where to secure the best that grows, and for the least money, quality considered. We are going to give you some of the places where the different seeds are grown, to show you how impractical it would be to try to grow all the seeds which are placed on the market in one particular locality. As, for instance, California produces the greater part of the onions, carrots, and many varieties of flower seeds. Michigan produces most of the tomato seed, Colorado, Nebraska and Kansas melons and other vine crop seeds. Long Island and New York the cabbage seed, Holland radishes, Germany beets and most of the garden seeds, England and Holland most of the rape seed. Iowa is the heaviest producer of timothy, Wisconsin, Minnesota and Ohio of clover, Kansas, Nebraska, Dakotas and Montana of alfalfa, and the Red River Valley in Minnesota the best seed potatoes ever grown. This, I think, illustrates the point which we wish to make clear to you, and although while we do grow some special seeds on our own farm, it would be impossible to grow all of the seeds we handle, the same as it would be with any other seedsman, unless he was a very small concern.

The advantage we do claim over other seedsmen is the expert knowledge of the seed growing business, knowing where the best is grown and at the least expense, and having the best growers in the business growing exclusively for us and buying in such quantities that we can deliver grass and field seeds to you cheaper than any other firm in America today, quality considered.

## The Heart of the Greatest Agricultural Section on Earth

The government reports show that Illinois, Iowa, Wisconsin, Michigan, Indiana, Ohio, Missouri, Kansas and Nebraska are the greatest grain and grass growing states in the Union, and this area on the whole surpasses any other in the world in agricultural production. Here is where the greatest amount of corn is produced, where the best corn is grown. This district surpasses in oats, barley and rye, raise the principal supply of timothy, clover, alfalfa, alsyke and a great deal of the garden seeds. Chicago is in the heart of this great agricultural district and the greatest distributing center in the United States. Because it is the heart of this great agricultural country makes it the greatest railroad center in the United States. We are within a short distance of the field and grass seed producing sections, and in close touch with the big growers, having direct short haul railroad connections from our fields, and to our customers all over the United States.

There is no use of repeating government statistics to prove the above statements. Everyone knows that these states lead in agricultural pursuits, and that Chicago is in the center of the greatest grain and seed market in the world. It is, therefore, worthy of your consideration in making up your seed order to deal with a firm that is situated so advantageously.

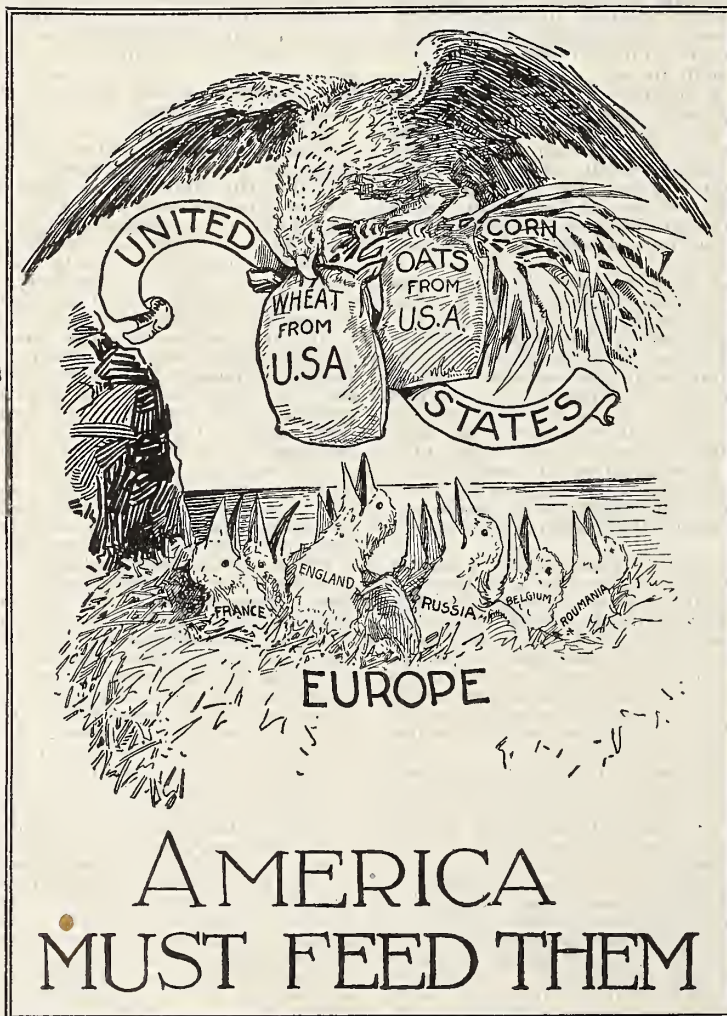
It goes to prove that we can serve you promptly, efficiently and profitably. To be right in the center of this great farming section gives us a big advantage that no other mail order seed house has. The item of freight alone means thousands of dollars saved to the seed buyers, and as we are able to serve so many more people we can cut our margins of profit closer, thus making an additional saving to you.

There are a great many other advantages which mean a saving to you by our location in the center of this greatest agricultural section in the world, and it is very evident that it will be both profitable and pleasant for you to take us up as your seedsmen.

Send us an order today and satisfy yourself that you will get the best bargain in seeds you have ever bought. At least, send us a letter asking for samples, telling us how much you want to buy of each kind of seeds. In comparing us with others who want your seed business, do not overlook the great advantage of location among the other great advantages we can offer you.

Chicago being in the heart of this great agricultural section has made it the greatest market for agricultural products in America. This fact enables us to purchase grass seed especially to a much better advantage than firms who are not so favorably located; consequently we are always in a position to save you money. Our buyers are always in touch with the market, and since Chicago is the greatest Timothy Seed market in the world and often handles more Clover than Toledo, we are offering you better prices on the same quality of seed than you can secure from any other firm.

This is the secret of our success and is the reason that we feel that you should not fail to take advantage of the opportunity to save money on your seed purchase by sending direct to us.



# AMERICA MUST FEED THEM





Cattle Appreciate Alfalfa Hay and Give Big Returns.

## Why the American Mutual Seed Company is Founded on a Profit-Sharing Plan

We want you to know just why we are operating this seed company on a profit-sharing plan.

While the men who organized and are the owners of this seed business are greatly interested in the welfare of the farmer, their motive in conducting the business under this co-operative plan is purely a question of getting more business at a less cost. That is, they not only believe they can give their customers a share of their profits, but that by doing so they will actually receive a larger amount of profit than they otherwise would if they did not share a part of their profits with their customers.

This co-operative profit-sharing plan is very popular and a splendid business "getter." By sharing our profits with our customers we can do more business and can build up the greatest seed business in the United States more rapidly and with less advertising than can be done by any other method. A company doing business on this profit-sharing plan will be much talked about, as the farmers will spread the good news in their community, this making unnecessary a great deal of advertising, which is a very large item of expense to every concern. This method of doing business will to a great extent advertise itself. In sharing the profits with our customers it, of course, cuts down our own profits, but still leaves enough to satisfy us. It is a known fact that many of the seed companies sell their goods at a price that leaves a very large margin of profit, and such things as the watering of stock and hiding of profits in other ways is not unknown in the seed business more than in other lines.

## Specialize in Grange and Farm Club Orders

Co-operation being so very popular, we get a big business in the form of club orders, grange orders, farmers' mutual combinations, farmers' institute orders, and other orders of similar nature, all of which we expressly cater to, the volume of which enables us to sell to the farmer at the lowest wholesale price.

## We Sell Direct to You

We do not sell to merchants, nor do we have any traveling men, but sell only direct to the farmer on this co-operative profit-sharing plan. We thus cut out the country dealer and jobber and all other middle men, and give the profits that would go to them to our customers. This plan has been proven to be very popular and a great money saver to the farmer in other lines, and is bound to be a winner in the seed business.

## Big Volume of Business Enables Us to Sell Cheap

Another reason for the co-operative profit-sharing plan is the great volume of business that it will enable us to do. The more we can buy and handle the cheaper and better we can buy it or raise it ourselves. We will thus have still more profit to share with our customers. Co-operation makes large sales and many of them.

We are able to handle a big order as cheaply as a small one and they enable us to sell you cheaper than those who do not follow a co-operative plan. Because of the fact that we handle such a large volume of business we are able to sell on smaller margins than those who depend upon a smaller amount of business for their profit.

Are not these reasons enough to convert the most case-hardened doubter that we can sell cheaper and give better value by selling on this co-operative plan than upon any other basis? Please read our co-operative plan carefully. It is certainly a good one.

## How We Save the Small Buyer Money

We want you to study this proposition long enough to realize the advantages of buying from a Mutual Seed Company.

Don't think because we sell to the big buyer of seeds we cannot serve the small buyer equally as well. We, in fact, are the only seed company that is fair with the small buyer, charging the same price to him as the large buyer. We have a bedrock price for all. If you buy only one bushel from us you get our best price and are not charged an excessive profit. We place the small buyer on equal terms and it is more to the interest of the small buyer to order from us than any other buyer. He gets the best quality at the lowest wholesale price and has everything to gain by placing his order with us.

In comparing our plan of co-operation with an individual you can see that we are working to the customer's advantage and if you are not buying your seeds on the co-operative plan you should start doing so at once. Furthermore, we divided our profit with the customers who helped us to sell a bigger volume on a small margin, and when every customer takes an active part in building up a business it is a big success. If you are in need of seed, write us for prices and samples and we will give you our best price and samples.

## How Small Buyers Can Share in the Profits

We want the small buyer to share in the profits on the same basis as the large buyer, and you can do this by clubbing together. It is not difficult to get up a club order, when you can save your friends money. Be energetic and get together your friends and neighbors and make up an order for \$100.00 worth or more and get a profit-sharing certificate. This is a big opportunity and you should make the most of it and we will co-operate with you in every way we can to get your friends to order. Catalogues will be sent on request to any of your friends; write for our clubbing list and blanks, and we will send samples and prices so it will be easy to get the order. You can easily get up an order for \$100.00 and you will receive a profit-sharing certificate, permitting you to share in the cash dividend besides getting your seed at a bed-rock price.

You have no idea what a big saving can be made by buying your seed in car lots or even in 100 bushel lots. We handle enormous quantities of grain and grass seed, and so are in a position at all times to make you the very best prices, and early in the season we can offer you some exceptional values, as our lots are unbroken and we have large quantities of high class seed for you to make your selections from.

We are strictly a farmers' institution. We buy from the farmer and sell to the farmer, thereby cutting out a half dozen middlemen between the producer and consumer. We are because of this fact always able to offer you the best of seed at the lowest price.

We buy for cash, which makes it possible for us to secure our seed at the lowest possible price, and to be able to take advantage of the market and secure our seeds at the low time. We sell for cash, therefore we have no bad outstanding accounts which we must offset by charging enough higher prices to make up the deficit. These facts make it possible for us to sell on a close margin and furnish you such high quality seed at such a price.



## The Clovers

Clover is probably the most widely grown of any of the legumes, and it has been styled the corner-stone of agriculture. It is used as a hay, pasture and soiling crop and often used as a green manure crop to be plowed under, and even where only the roots and stubble are plowed under it exerts a wonderful influence on the succeeding crop, for, by means of the nitrogen fixing bacteria on its roots, it is able to gather the nitrogen from the air and store it in the soil in a form which can be readily utilized as plant food by the succeeding crop; for experience shows that from 30 to 50 per cent of fertility is in the roots and stubble and that is why grain crop following clover is often doubled in yield, and you can always raise more bushels of corn, wheat or oats after clover.

### Why You Should Send to Us for Clover Seed

We are very large handlers of Clover Seed, and buying this seed in car lots enables us to furnish you seed at a much lower price than the small dealer who only carries a few bags in stock. Having a well equipped cleaning plant enables us to give you a better quality of seed than you are able to secure from the smaller dealer.

Another fact that should be taken into consideration when buying your Clover Seed is that when you secure it from us you get it from first hands and are not forced to pay two or three middlemen's profits.

No other one thing is as important in securing a stand of Clover as sowing scarified seed. Clover seed possesses a very hard seed coat and a large per cent of this seed to all practical purposes is of no more value than so many pebbles would be. This fact makes the cost of germinable seed very high, and tests have been made where common Red Clover ran as high as 40 per cent and Alfalfa and Sweet Clover 40 to 80 per cent of ungerminable seed. When we realize that one-half to two-thirds of the Clover, Alfalfa and Sweet Clover we have been sowing never grew on account of the seed coat, is it any wonder we have not been securing a stand, and have thrown away hundreds of thousands of dollars for grass seed which we could have saved by using scarified seed.

Write your experiment station and ask them about our Scarified Seed, and see if they do not bear with us in every assertion made in the foregoing paragraph, for it is worth your while to investigate this subject of Scarified Seed, for it may save you hundreds of dollars.

### Always Ask for Prices and Samples

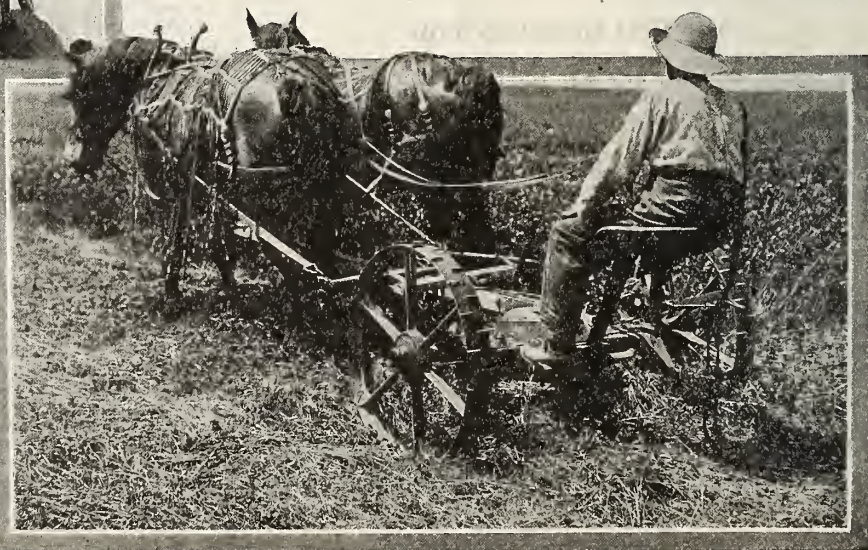
Always ask for prices and samples of Clover Seed before ordering, as the market fluctuates so widely that we cannot make you a price at the time of going to press, for no one can foretell accurately just what future values will be, but we publish a special price list throughout the season, and will keep any customers who desire in touch with the latest market quotations. We cannot, however, scatter these price lists broadcast throughout the country, but remember a postal will bring you the latest market quotations. To those who are so far away that they cannot keep in close touch with market value, I wish to say that should there be any change in the market they will get the benefit of it and we will ship seed to the full value of the money sent.

When you buy seeds from samples sent out by us it means that you will receive seed identical with the sample and in that way you will know exactly what you are buying. Remember, we have taken special pride in our Clover Seed, and are glad to have you ask for these samples at any time that you are in the market, and our extraordinary equipment of the latest and most improved up-to-date cleaning and grading machinery makes it possible for us to furnish you the best grade of Clover Seed that can be secured, and our unsurpassed advantages in being in close touch with the market at all times, and being so located that we have no drayage expense, makes it possible for us to furnish you the best Clover Seed that can be secured for the money.

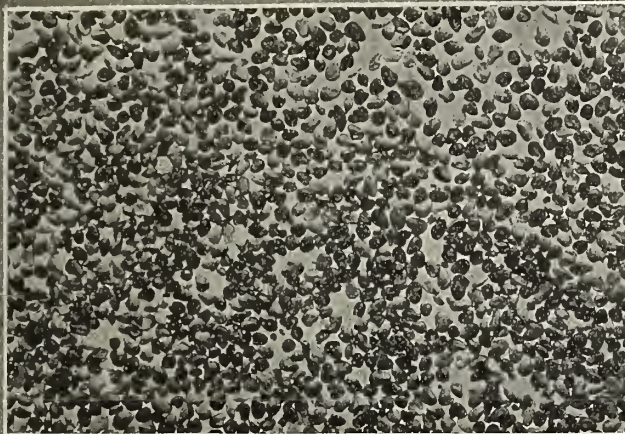
Our Clover Seed cannot be surpassed for purity, strong vitality, hardness and stooling qualities, and as all of our seed has been run through the Scarifying Machine, no Clover Seed can surpass it in germination. To order once from our stock is to sow no other.

### Crop Short—Order Early

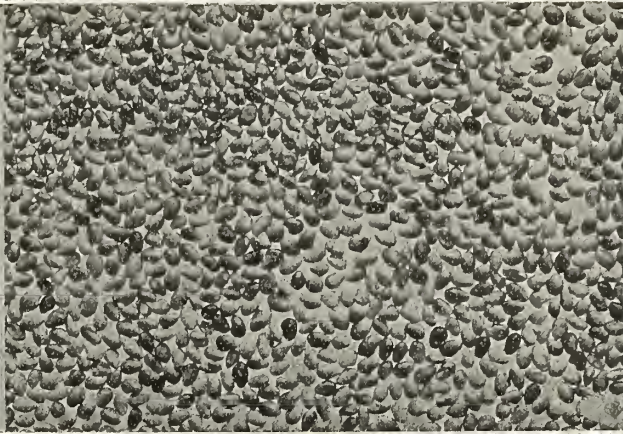
The crop of Medium Red and Mammoth Clover is undoubtedly the shortest we have had in many years and we wish to urge upon our friends and customers to place their orders as early as possible. We see nothing to indicate that prices will be any lower and we feel that there is a possibility of seeing much higher prices before sowing time.







Impure Clover.



Pure Clover.

## Our Grades of Grass Seed

1. **PINNACLE BRAND (EXTRA FANCY)**
2. **UNIVERSAL BRAND (FANCY)**
3. **ECONOMY BRAND (CHOICE)**

We must necessarily handle more than one grade of seed. The reason for this is, First, it would be an utter impossibility to secure enough of our Pinnacle Brand Seed to do business, for only a small per cent of the crop is good enough to sell for this brand, for it is Perfection itself, and this original stock must be carefully graded to produce this Extra Fancy Quality, leaving behind a lot of Fancy, Choice and Prime Seed that we could not utilize unless we handled more than one grade of seed. Second, We could not meet the demand of the public for a seed cheaper in price than our Pinnacle Brand, and as we do not offer our Pinnacle Brand Seed in competition with ordinary grades, we would be placed at a disadvantage, and while we only handle the best grades of seed we can secure, you can readily understand the necessity of our handling more than one grade.

**OUR PINNACLE BRAND (Extra-Fancy).** This is the very best grade of seed which can be secured. It is all

nice, plump, even colored seed, and has been carefully graded to secure seed of a uniform size. This seed is known among seedsmen as hand-picked seed, and if you want the best that grows, we have it in our Pinnacle Brand.

**OUR UNIVERSAL BRAND** contains seed which has been thoroughly re-cleaned, and unless you had our Pinnacle Brand to compare it with, you would call it extra fancy, for it really is one of the highest grades of seed, and gives splendid satisfaction.

**OUR ECONOMY BRAND** Seed is our choice seed. It is the brand which constitutes 50% of the orders we receive, and we do not hesitate to recommend it to you, for we know that it will please you. It has been thoroughly re-cleaned. It is the equal of many grades sold as Fancy, and represented to be the best.

**COUNTRY RUN.** We often times have small lots of seed that are of very good quality that we can make you a very low price on. This seed has just been cleaned through a farm mill but many of our customers secure good results with it and sow it from year to year.

## Medium Red or June Clover TRIFOLIUM PRAETENSE

This is the standard Clover on 90% of the farms in the world. It is probably the most important of the Clover family. It can be grown in most any section of the United States except in the arid and semi-arid sections. Medium Red or June Clover is one of the easiest of crops to grow. It is usually seeded with small grain in the Spring and usually produces a fair crop the same year. It can usually be used to a better advantage in a crop rotation than the other Clovers and this in a measure accounts for it being used so extensively.

This variety of Clover is, without a doubt, the backbone of our agriculture today. It would indeed be a hard proposition especially here in the corn belt to farm without the aid of this wonderful legume. It is one of the main sources of nitrogen, especially throughout the corn belt where the succeeding crop demands an abundance of nitrogen.

Medium Red Clover produces a very fine quality of hay. It cures quite readily and is high in feeding value. As a pasture crop it has no equal, where one only intends to pasture the land a short time and then put it into other crops. It builds up the land and produces an abundance of feed whether used for pasture or cut for hay. Timothy is usually sown with Medium Red Clover, and no other crop will give one the satisfaction that a nice Timothy and Clover pasture or meadow will.

### We Are Large Handlers of Medium Red Clover

We handle enormous quantities of Medium Red Clover seed and rank up among the largest handlers of this crop in America. We are always in a position to quote you to advantage, and we feel sure that we can save you money on any Red Clover you may need. We are always glad to send you samples and quote you prices.

### We Can Furnish You with Scarified Seed

We are in position to furnish you Scarified seed. This is a big advantage that our seed has over the seed from

other dealers. By scarifying the seed it increases its germination about 40% so you can readily see the advisability of sowing only our Scarified seed.

Do not fail to secure our samples and prices before you buy your seed this year. We are always glad to send you samples and prices. See green list for latest quotations.

### Facts About Medium Red Clover

1. It produces large crops of the very best quality of hay.
2. It works in better in the crop rotation than any other legume.
3. It not only adds nitrogen to the soil, but improves the physical condition.
4. It is one of the greatest pasture crops known.
5. A seed crop is often worth more than the value of the land.

### A Word About Price

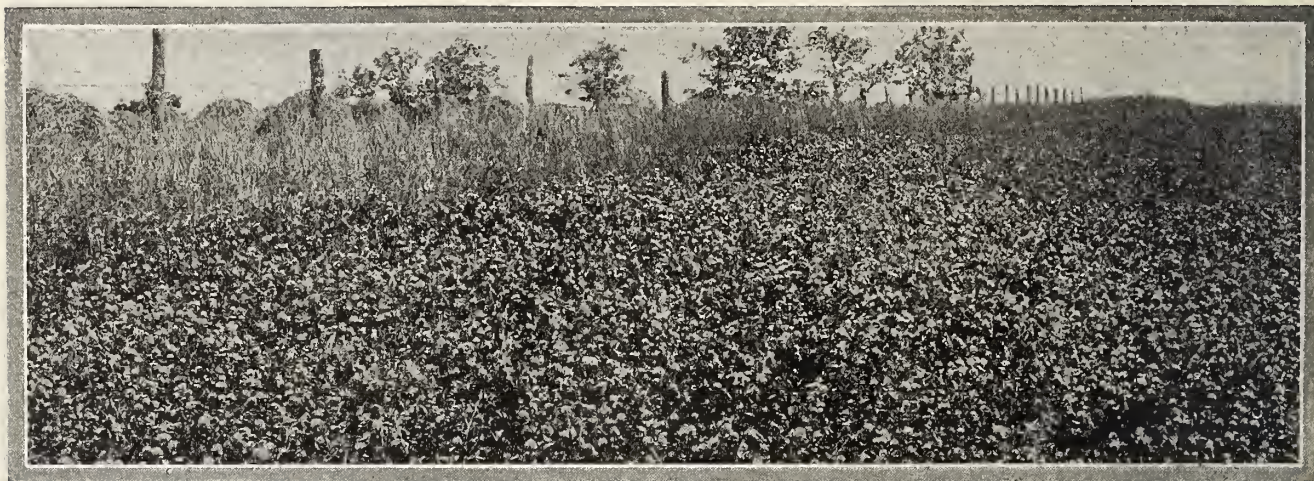
The price of Clover seed cannot be fixed definitely. Clover like many other seeds is constantly fluctuating in price. On this account we prefer to make you special quotations by letter. We are very large handlers of this grade of seed and are often times able to get you in on an inside price.

Our superior cleaning and grading machinery makes it possible for us to furnish you the very best Clover seed that the money will buy.

Our Pinnacle Brand represents the very highest quality of seed, but if you desire a cheaper grade we have it and can save you money on every purchase.

We furnish you a guarantee with every bushel of Clover seed that we send out. Every lot is guaranteed to be satisfactory to you in every way. Test it in any way you care to and if it isn't right, we make it right. We are here to please you. Send us an order and be convinced of the big values we are offering.





Our Pinnacle Brand of Clover Seed Produces Wonderful Crops.

## Mammoth Red Clover

*Trifolium Praetense.*

This variety of Clover is also called Sopling or Pea Vine Clover. It is a strong, vigorous grower, and produces an abundance of forage. It has been criticised by some because of the hay being too coarse. Regardless of this fact, however, it is one of the most valuable of the Clover family.

Mammoth Clover is grown quite extensively throughout the Northern and Eastern States. Because of the fact that it ripens somewhat later than Medium Red Clover, many prefer it when Clover is grown in connection with Timothy, as the two crops ripen about the same time.

Mammoth Clover is without a doubt one of the greatest fertilizers grown. It is very hardy and produces an enormous tonnage, and its quick, hardy growing characteristics makes it especially desirable for pasture. In the Northern part of the United States where they can grow only one crop of Clover during the season, it is very popular.

All of our seed of the Clover has been scarified the same as our Medium Red, and handling large quantities of this seed as we do, we are always in a position to furnish you the best for the least money.

It is the great crop that not only brings in an enormous revenue but builds up run down farms in a remarkably short time. This crop is especially suitable for growing on very thin land when a strong vigorous growing Clover that will add a large amount of humus to the soil is desired. It is claimed for it that it is more hardy than the Medium Red Clover and that it will succeed where the other clovers will fail. Mammoth Clover will undoubtedly be scarce this year and we wish to urge upon you to secure your seed as early as possible to insure getting it.

## Crimson Giant or Incarnate Clover

The importance of this wonderful Annual Clover is becoming more and more realized each year. It is especially desirable as a green manure crop, and because of its fertilizing qualities is used extensively throughout the South.

This crop, while it grows luxuriantly on the rich, fertile, loam soils, fulfills its real mission when grown on the light poorer soils, as it will thrive on soil too poor for growing Red Clover successfully. When grown for fertilizing purposes this Clover is usually sown in the fall, used for a cover crop during the winter and plowed under the following spring. Plowing under a good crop of this Clover is equivalent to 20 tons of stable manure, and is the cheapest source of nitrogen known. It has been the means of placing thousands of acres of poor land upon a profitable basis.

**Feeding Value.** This crop when properly cut for hay is superior to even Red Clover, being richer in protein. It is especially valuable for silage purposes, is especially relished by dairy stock, and the enormous yields of silage which it produces per acre makes it a crop which is of great value to the dairy farmer. Write for samples and prices.

## Lespedeza or Japan Clover

*Lespedeza Stata.*

This plant, which was accidentally introduced into the United States about 60 years ago, has now spread all over the Southern States and into Kansas and Pennsylvania. It is highly esteemed as a constituent of pastures, and in some sections grows so luxuriantly that splendid crops of hay are cut. It sometimes grows to a height of 24 to 30 inches. Where the stand is very thin the plants have a

prostrate habit, but where it is thick they grow upright. Many times yields of hay exceeding two tons per acre are secured, and in exceptional cases three or even four tons.

Under conditions where Lespedeza is adapted it is proving to be a crop of exceptional merit. As the true merits of the crop become more widely known its popularity increases. It takes practically the same growing season as Cow Peas and Soy Beans. It grows on all types of soil and furnishes forage on barren, gravelly wastes where no other crop will grow. It will withstand any amount of grazing and is very similar in feeding value to Alfalfa.

Lespedeza is a very valuable crop for growing in combination with Red Top or Bermuda Grass, and the experience of farmers and the result of experiments have developed many different methods by which the crop can be grown with wonderful success. Write for samples and prices.

## White or Dutch Clover

This variety of Clover is a great favorite in lawn or pasture mixtures, and is usually sown in combination with Blue Grass. It is a low growing, shallow rooted variety, and its chemical analysis shows it to be much richer in protein than any other Clover. The seed is very small and high in price, which has in a measure kept it from being more generally sown. Write for prices.

## A Word About Price

The price of Clover seed may look high to some of you this year, but such is not the case when you compare the value of a bushel of Clover with that of other farm crops. At this time it is not possible to put a price on Clover seed, but it will no doubt be high as well as other farm crops. We wish to caution you against neglecting to sow Clover this year for with conditions as they are, it is up to every farmer to keep his farm in as high a state of cultivation as possible this year.

Drop us a line when you are ready to sow. We are always in a position to save you some money on Clover seed.

## GROWING THE CROP

**SOIL**—Clover makes its best growth on rich, fertile, well drained limestone soil, but will flourish on most any soil where there is sufficient rain fall, if the seed is inoculated; for Clover will grow and flourish in a soil that is low in nitrogen as long as there is a sufficient supply of bacteria to start the plants until they have an opportunity to develop tubercles on the roots for the purpose of gathering nitrogen from the air and storing it in the soil.

**PREPARATION OF SEED BED**—Clover is quite often seeded in the spring on winter grain, in which case no special preparation of the seed bed is necessary, as the frost usually checks the ground sufficient to form a covering for the seed. When sown with a spring grain crop, no special preparation of the ground is needed except that given the land for the grain crop, but the seed bed should be fine and rather firm in either case to guarantee prompt germination.

**SEEDING**—Clover is often a failure because it is not planted deep enough to secure proper moisture conditions. On clay soils it should be planted one inch deep, while on light sandy soils it should be planted one and one-half to two inches deep. It may be seeded in the autumn about six weeks before frost or in the early spring. Many follow the practice of sowing Clover on the snow in the early spring, but we question very much the advisability of this method as the wind often piles up the seed or the snow goes off with a rain, thus washing the seed in piles. Very good results have been obtained, however, by sowing on the ground after the snow has melted and while the ground is still freezing and thawing. There is a wide difference of opinion as to the amount of seed to sow, but we have always followed the practice of putting on six quarts, and I believe we have every reason to feel proud of our past success in securing successful stands.





**Alsike Produces Wonderful Crops of the Very Finest Hay.**

## **Alsike (Trifolium Hybridum)**

This wonderful Clover is becoming very popular throughout a vast area of the country. It will grow successfully over a wider range of soil and climates than any of the other Clovers. While it is especially adapted to cool, moist climates, it is capable of adapting itself to many adverse conditions and is very popular for growing on soil slightly acid where no other Clover can be grown.

Alsike is a perennial, and because of this characteristic is especially valuable for growing on land where one wishes to secure a permanent pasture or meadow. Because of its not being susceptible to heaving and winter killing it is a very valuable crop to grow where climatic conditions make it hard to grow other Clovers.

### **Alsike the Great Crop to Grow in Combination with Other Grasses**

Alsike when grown in combination with grasses makes one of the best combinations either for hay or pasture that can be grown. It is a perennial the same as most grasses, and this feature is especially commendable for growing it in combination with grasses. Timothy and Alsike produce one of the best crops that can be grown for hay or pasture. It not only forms a thick bottom there by increasing the yield, but being a legume it greatly increases the feeding value of the crop.

We handle a mixture of Alsike and Timothy that has been grown together, and we are unable to separate, and we can make you a very low price on this seed. Write us for special prices on Alsike before buying your seed, as the market fluctuates considerably and we are unable to make you a firm price at this time, but when you are ready to buy just drop us a line and we will quote you firm prices, together with samples of the identical lots which we are offering you, thereby enabling you to see just what you are buying.

### **Alsike Very Valuable for Growing on Wet Land or Land Slightly Acid**

Alsike is especially valuable in reclaiming wet lands, and will produce a wonderful crop where nothing but swamp weeds formerly grew. It is not injured by over-flowing, providing water does not stand upon it for too great a length of time, and it has been found to be of great importance in reclaiming districts through which drainage canals have been constructed, as it seems to be especially adapted to the low lying soil, and materially aids in getting such tracts of land in shape for future cultivation.

Much of the very best land in some sections is slightly acid and prevents one from growing Clover upon it without first giving it a heavy application of lime, and while Alsike prefers a soil rich in lime, many are growing it with marked success when no other legume would grow. Its adaptability to grow on such land has been a great factor in the agricultural success of such sections, as it has saved the farmers thousands of dollars for commercial fertilizers.

### **Alsike Rich in Feeding Value**

Alsike produces the very finest quality of hay or pasture that is very rich in feeding value, especially so in protein. Some authorities have advanced the theory that Alsike produced eruptions of the skin when pastured by horses. The actual experience of the growers have failed to fault it for this fact.

From every source comes nothing but words of praise

for this wonderful crop, and reports of its heavy yields. Alsike is preferable to other Clovers for growing in combination with Timothy and other grasses, because of the fact that it does not grow so coarse and produces a finer quality of hay.

### **Reasons Why You Should Grow Alsike**

- 1st—It is a legume and will enrich the soil.
- 2nd—It can be grown on wet land where no other legume will grow.
- 3rd—It can be grown on land that is acid.
- 4th—It is rich in feeding value.
- 5th—It is a perennial, and when once you get a stand it will endure for years.
- 6th—It greatly increases the feeding value and yield where grown with the grasses.
- 7th—It does not take as much seed to sow an acre as it does of other Clover.
- 8th—It is not usually any higher in price than other Clover.

### **The Value of Alsike Not Fully Realized**

Only within the last few years has the real value of Alsike begun to be appreciated. It has enabled thousands of farmers to grow Clover who could not do so before because of the acidity of their soil. Because of the fact that this crop has made it possible to grow Clover on this land has been worth thousands of dollars to the American farmer. Teamsters and others have come to appreciate the value of Alsike within the last few years, and today Timothy mixed with Alsike commands the very highest prices on the market.

### **Alsike Valuable as a Seed Crop**

Alsike is one of the most valuable crops that can be grown for a seed crop. It seeds very heavily and the setting of the seed is not as susceptible to weather conditions as other Clovers. Alsike not only produces a very heavy crop of seed, but the seed usually commands a very fair price. We do not know of any way by which you can make money any easier than by growing a crop of Alsike for seed. It is easily harvested and easily threshed. **Grow Alsike for Seed.** It will make you more money than any crop you can grow.

### **We Can Save You Money on Alsike**

We are in a position at all times to save you money on Alsike. Handling large quantities of this seed as we do enables us to make a big saving for you on Alsike, as we are in close touch with conditions in the Alsike growing sections and can at all times give you the very best that the market affords. See green list for latest quotations.

### **GROWING THE CROP**

**SOIL.**—Alsike prefers a rather cool, moist soil, but can be grown on most any soil where any crops will grow.

**PREPARATION OF THE SEED BED.**—No special preparation of the seed bed is needed, and all that is necessary is to give the seed a light covering.

**SEEDING.**—Alsike should be seeded at about the rate of 1 bushel to 8 acres, and the best results are obtained by sowing in connection with a light seeding of small grain.

**HARVESTING.**—The method of harvesting depends upon to what use you wish to put the crop, as it may be pastured, cut for seed or for hay. If cut for seed a common mower with a bunching attachment is the most practical method, and when cut for hay it is handled the same as any other hay crop.





Pinnacle Brand of Alfalfa Seed Produces Heavy Yields.

## Alfalfa, The Greatest of All Forage Plants

Probably no other crop in the history of the nation has been the means of extending agricultural development over as wide an area or to as great an extent as Alfalfa. From the arid West to the humid sections of the Corn Belt, it is making it possible to grow upon the farm a greater number of cattle, hogs, horses and sheep than it was ever possible before Alfalfa entered the realm of the live stock farmer.

### Success with Alfalfa Depends to a Great Extent Upon the Grower

Alfalfa is an easy crop to grow if proper precautions are taken, but it is absolutely necessary to sow only the best seed obtainable to secure the best results in growing Alfalfa. The reason for this is, no one should use seed from a more temperate climate than that in which he wishes to grow his crop, for no one feature is so essential as to secure good, hardy seed stock. Alfalfa is no longer an experiment; it is a reality. But still numerous farmers persist in experimenting with it—that is, they try to grow it by using a cheap grade of seed, by not preparing the seed bed, by not inoculating, and by sowing it upon sour soil without the use of limestone; and any one of the four mentioned conditions is enough to keep one from securing a stand of Alfalfa. To this class of farmers may be attributed the reason for Alfalfa not being sown in certain sections, for they have by their slipshod methods tried to impress upon the entire community the folly of trying to secure a stand of Alfalfa, claiming, because they had failed by their slipshod methods, that it could not be grown in the neighborhood, while as a matter of fact, Alfalfa can be grown in every State in the Union, and in 99 per cent of the counties and on 99 per cent of the farms. This is not a "wildcat" statement, but a truth based on actual statistics, so do not hesitate about attempting to grow this great crop, because some one in the neighborhood has tried and failed, for you cannot afford to be without it upon your farm. It will be worth double to you what any other crop has been that you have grown, and we will venture the assertion that if you will follow the simple directions set forth in this Guide for securing a stand that you will not be disappointed.

When buying Alfalfa seed, you cannot afford to use seed that has been grown under climatic conditions not suitable to the production of high class seed. Remember when ordering your Alfalfa Seed that we handle the very choicest qualities that can be grown, and we sell no irrigated or imported seed. Our seed stock is grown exclusively for us in the Northwest, where some of the largest growers in Nebraska, Montana and the Dakotas send us their entire crop. Our prices are the most reasonable that you can secure on the quality of seed which we handle, for we send our buyers right into those sections where Alfalfa seed is grown in the highest state of perfection, and buy the entire output of the whole community, thereby securing our stock at prices lower, quality considered, than any competitor who handles seed in smaller quantities can meet.

All our seed is backed by our Absolute Guarantee, and sold subject to State and National tests, and is all shipped to you on approval. If you do not find it satisfactory in every way, ship it back and we refund your money, for we are not satisfied unless you are.

We handle the same grades of Alfalfa seed that we do of Grass Seed, and we wish to call special attention to our exceedingly low prices on Pinnacle Brand seed in five bushel lots, for we believe that in this grade of seed we are offering you the best that can be secured at any price.

### Grow the Great Money Crop

Don't miss the opportunity to produce two tons of high-priced feed stuff where only one grew before. While Alfalfa growing is only in its infancy in the Northern and Eastern States, the farmers are beginning to appreciate the wonderful possibilities of this great crop, as indicated by the enormous increase in sales of **Re-cleaned Alfalfa Seed**, showing that Alfalfa is being grown in the North and East upon the most prosperous farms in those sections.

Get in line, get some of the seed of this great revenue producer. Don't let your neighbor grow better and bigger crops than you do simply because he grows this great legume, and after harvesting twice as much hay per acre as he could from any other crop he has his land in such a state of productivity that he can grow twice the number of bushels per acre that you can.

Be progressive. This is the age of brains; don't try to squeeze out a bare existence by plodding along the same old rut year after year. Take advantage of the possibilities of doubling your income by growing this great money crop, Alfalfa.

## Varieties of Alfalfa

### American Alfalfa Hardy Montana-Grown Seed Stock

In order to distinguish it from other types, this variety is often referred to as Western Alfalfa; it is very productive and vigorous and withstands the cold better than the German types. This variety of seed is the one best suited for the Corn Belt. Our seed stock has been especially grown for us by the best and largest growers in Montana, and as Montana produces Alfalfa seed which cannot be excelled anywhere in the world we are, in a position to offer you the best that grows, and we buy it in such quantities that we can make you a price with which no competitor can compete.

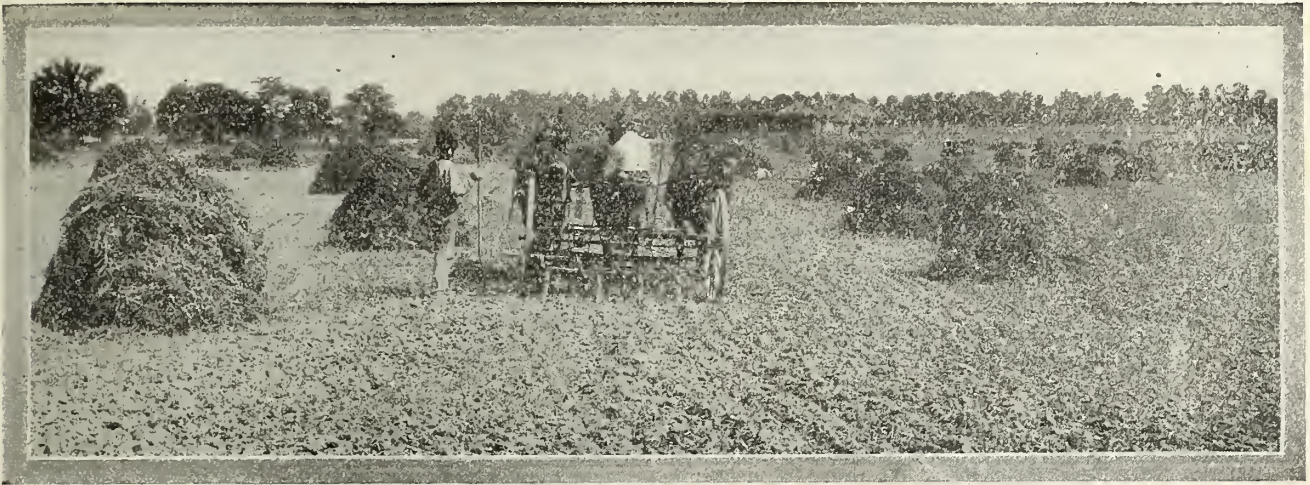
**NEBRASKA GROWN SEED.** We have a nice lot of Nebraska grown seed which we can offer you a little cheaper than either Montana or Dakota grown, and we believe it will give you equally as good results under ordinary conditions. Write for samples and prices.

**DAKOTA GROWN SEED.** We handle Dakota grown seed from the most reliable growers, and can offer you the very best seed stock which can be secured. Write for samples and prices, and be convinced of the wonderful values we are offering you. Write for samples and prices.

### Turkestan Alfalfa

This variety of Alfalfa was introduced by the United States Agricultural Department in 1898. Coming from a semi-arid region, as it does, it is naturally drouth-resistant and well adapted to dry farming districts of the West. It very much resembles the common Alfalfa; in fact, it is hard to distinguish between the two. While it does not produce the rank growth of forage that the common Alfalfa does in the more humid sections, it is without a doubt the more desirable variety for growing under dry land conditions. Write for sample and prices.





Cutting an Alfalfa Field after Cutting the Fourth Crop.

## Grimm Alfalfa

**Resists Winter Blasts and Summer Droughts.**

This variety is considered the hardest species of the alfalfa family. The secret of its success where others fail seems to be due to its more branching or lateral root system. This characteristic makes it less susceptible to heaving caused by frequent thawing and freezing where the ground is bare of snow.

Grimm Alfalfa gets its name from Wendelin Grimm of Carver County, Minnesota, who introduced it over thirty years ago. It has since been grown extensively in South Eastern Montana and Western South Dakota where the most extreme conditions of heat, cold and drought exist, the thermometer often registering over 100 degrees in Summer and 40 to 50 below zero in Winter. Being grown under such adverse conditions has made it hardy enough to withstand the most adverse weather conditions.

### **This Variety Makes It Possible to Grow Alfalfa no Matter Where You Live**

No matter in what part of the United States or Canada you are situated, you can grow Grimm Alfalfa. It's the variety that never disappoints. It always makes a crop. No re-seeding to be done. The older it is the better it gets. It has been grown for years under the most adverse conditions and it never winter kills. It's the variety that will insure your alfalfa field against any kind of weather conditions.

Our seed is grown in the Black Hills district where the plants are often subjected to 40 to 50 degrees below zero with very little snow for protection. Alfalfa that will thrive there will certainly do so any where else that it may be sown.

As the price is rather uncertain at the time of going to press, we wish to refer you to price list enclosed, or better still, write for prices and an exact sample of the seed we will fill your order with.

## Liscomb

This variety of Alfalfa secures its name from G. W. Liscomb who first sowed it some thirty-five years ago in Eastern Montana. The old field is still in existence and is said to yield a splendid crop of seed each year.

The Liscomb Alfalfa belongs to the group known as Media. Associated with this variety in this group are the hardest varieties of Alfalfa that we have. The chief characteristics of this group, are:

- 1st. The more branching root system.
- 2nd. The receding crown.
- 3rd. The variegated flower.

Often times the crowns on the group of Media or hardy strains of Alfalfa are 3 or 4 inches below the ground. The flowers of the alfalfa belonging to these groups are variegated and range from a greenish white to a deep maroon, while the flowers of the ordinary alfalfa are blue in color.

This seed is grown for us in the Black Hills of South Dakota and in Montana. It is the very hardest strain of Alfalfa that you can buy. Don't take the chance of having your Alfalfa freeze out, but buy this hardy Northern grown seed and be sure of having plenty of Alfalfa.

**Price:** We are making a special offer of 35c per lb., post-paid, on all our hardy alfalfa of the Grimm and Liscomb

strains, as we want all of our customers to see for themselves how much superior to the common alfalfa these winter and drought resisting varieties are. We are willing to stand our share of the expense in order to convince you and are making you this offer of 35c for a pound of seed which hardly covers the expense of packing and mailing. Write for special prices on large amount.

## Hardy Montana Grown American Alfalfa

We are selling large quantities of Montana grown Alfalfa seed. We have had our Alfalfa seed buyers in this section all year securing the very choicest lots from the most reliable growers, and when you buy hardy Northern grown seed from us you know just what you are getting. We only offer the Pinnacle Brand seed in Montana grown stock as we only handle the choicest lots of this kind of seed.

Ask for prices and samples when ready to buy. The market fluctuates on Alfalfa so that we cannot make firm prices at the time of going to press, but drop us a card when you are ready to buy. We will quote you very close prices on the very best quality of seed. Write.

### GROWING THE CROP

**SOIL**—Alfalfa is very particular about the soil required for its best development; in fact, more failures in securing a stand can be attributed to not paying attention to the requirements necessary in placing the soil in condition to grow Alfalfa than upon any other one thing. The soil for the production of Alfalfa must be well drained. Alfalfa, as the often repeated statement is made, "will not stand wet feet." Alfalfa will not thrive upon a sour soil, and any soil which changes the blue litmus paper from blue to pink will not grow Alfalfa until it has been incorporated into a good supply of limestone. Good drainage and ground limestone, together with proper inoculation and pure seed seem to be the chief pre-requisite for successful Alfalfa culture, especially in Illinois.

**PREPARATION OF THE SEED BED**—The seed bed in this section should be plowed as early as possible, or better yet, summer fallowed; it should be worked into a fine state of cultivation, and any extra work put upon the seed bed will be more than repaid by the extra yield produced, and in the uniformity of the stand secured, for one of the first considerations in the handling of the field is to get rid of all weeds.

**SEED AND SEEDING**—Get good, pure, unadulterated seed. It is not only necessary that the seed should be strong in germinating qualities but should be free from noxious weeds, and be of a variety the seed stock of which is grown in such a locality as it will meet the requirements of the section in which you wish to grow the crop. The seed should also be inoculated in order to secure a strong, vigorous growth of young plants, and although Alfalfa will thrive in many sections without inoculation, the extra growth secured from inoculation always many times more than repays one for the extra cost. It should be sowed at the rate of from 12 to 15 pounds per acre during the months of August and September in territories adjacent to this section, but in the West the most satisfactory results have been obtained by sowing with a nurse crop in the spring, and when a nurse crop is used, barley is preferred, especially barley of the beardless variety.

**HARVESTING**—The time of harvesting will depend upon whether the crop is to be cut for hay or seed. In cutting the Alfalfa for hay the best time to start the mowers is just as the young shoots of the second crop are commencing to start. Alfalfa cut at this stage not only produces the most palatable and nutritious feed and the greatest number of tons per acre, but it seems to have the effect if it is allowed to stand until this stage of helping the second crop along and it will only be a comparatively short time after the first crop is removed until you can start mowing on the second crop.





Note the Difference in Height of Growth of the Inoculated and Uninoculated Fields.

## Inoculation for Legumes

All plants belonging to the family known as legumes, such as Alfalfa, Clover, Sweet Clover, Cow Peas, Soy Beans and the Vetches, have upon their roots nodules or tubercles, produced by certain bacteria by which the plants are enabled to obtain a supply of nitrogen from the air. Though the legumes can grow without the presence of these bacteria, especially if the soil is rich in nitrogen, yet under normal field conditions the growth is very much retarded, and where these organisms are not present as indicated by the tubercles on the roots, it is necessary to inoculate the young plants or seed in order to procure the best results, for unless these tubercles are present the plant is not fulfilling the purpose for which it was intended, for it is using up nitrogen instead of supplying it. This can best be done by placing bacteria directly upon the seed before sowing. This practice has been rendered practical by the use of pure culture, a method perfected in the laboratory of Plant Physiology of the Bureau of Plant Industry of the Department of Agriculture.

To meet the demands for a pure culture for the practical farmer, we have manufactured especially for us Bacteria Tubercle-germ, which we believe to be the best pure culture ever placed upon the market. This is not a fertilizer, but it is an inoculator. It enables the legumes to draw nitrogen from the air, storing it in its root cells, thus enabling them to manufacture large quantities of this most necessary element of plant food. This Bacteria Tubercle-germ simply promotes the development of the tubercles on the roots of the plants enabling them to secure nitrogen from the air and store it in the soil where it becomes available plant food for the succeeding crop.

All agriculture authorities heartily recommend the inoculation of legumes with Bacteria Tubercle-germ, and we wish to suggest that you secure from your experimental station and from the Department of Agriculture at Washington all of the bulletins treating upon this subject which you can secure, for we believe that upon the successful inoculation of our legumes depends in a great measure the success of our farming operations, for without nitrogen it is impossible to grow successful crops, and without legumes it is an expensive process to secure this nitrogen by means of commercial fertilizer.

We carry Bacteria Tubercle-germ for the different legume crops, so in ordering specify the kind you want. We have Bacteria Tubercle-germ for Alfalfa, Sweet Clover, Clover, Sand Vetch, Cow Peas, Soy Beans and Field Peas, so be sure to specify the legume which you wish to inoculate, so that we can supply Bacterial Tubercle-germ for the particular legume which you wish to inoculate. Our Bacterial Tubercle-germ is put up in bottles ranging in size from one to twenty acres, and full instructions for using are included in every package sent out. Our Bacteria Tubercle-germ is guaranteed to be of the highest quality, and the bacteria are guaranteed to retain their vitality for six months from date of shipment.

### Don't Be Fooled into Thinking You do Not Have To Inoculate

Pure cultures are making money for farmers in every country in the world. Why not try fifteen or twenty acres. Better sow ten pounds of seed per acre which has been inoculated than twenty pounds which has not. Make sure of your Clover and Alfalfa crop. Don't take any chances. Seed and labor cost too much to have a failure when you can insure yourself against a failure in getting a stand by using Bacteria Tubercle-germ. Only a little extra time and not much extra labor to properly inoculate, so you will be taking no chances in securing a stand.

Remember that while legumes will grow on soil containing no bacteria for the development of the nitrogen gathering tubercles on the roots of the plants, they deplete your soil the same as any other crop and make but one-half the growth.

We have a special Bacteria Tubercle-germ for each of the following legumes:

Sweet Clover.	Cow Peas.
Alfalfa.	White Clover.
Mammoth and Red Clover.	Soy Beans.
Crimson Clover.	Field Peas.
Alsike Clover.	Vetch.

Be sure and mention which crop you wish to inoculate in ordering Tubercle-germ. Remember inoculation is not a seed expense but a crop insurance. It is not an expense but an investment, that means 100 per cent dividends on the original cost. It restores and maintains

soil fertility. It works like yeast on bread, and when properly mixed with the legume seed before planting brings nitrogen from the air into the soil, making the plant more healthy and vigorous, besides storing up plant food for the succeeding crops.

The seed of Clover, Alfalfa, Sweet Clover and the other legumes cost too much money to sow without inoculation, for you not only run the risk of not securing a stand, but the plants only reach their maximum production when abundantly supplied with these tubercle-gathering bacteria.

### Pure Culture Method of Inoculation Recommended in Highest Terms by U. S. Department of Agriculture

The most scientific method of inoculating the Clover is to obtain a pure culture of the Clover bacteria and moisten the seed with it before sowing. Farmer's Bulletin 323, U. S. Department of Agriculture, recommends inoculation:

1. When the soil has not previously borne leguminous crops.
2. When legumes which were previously grown on the same soil were devoid of tubercles.
3. When the legumes to be sown are not closely related to legumes previously grown upon the same soil.
4. When the land does not produce a strong, vigorous growth of legumes even though some tubercles are present.

### Advantages to Be Gained by the Use of Tuber-Cle-Germ

1. It will enrich the soil of your farm in nitrogen and humus.
2. It is the only insurance against wearing out your soil.
3. It will increase the value of your farm.
4. It will restore land to a high state of productivity which is depleted of nitrogen.
5. It will insure you getting a stand of Alfalfa, Clover or any other legumes.
6. It will increase the tonnage of hay from any of the legume crops from 20 to 100 per cent.

### Professor Hughes in Charge of Farm Crops Department Iowa State College, writes as follows of the necessity of Inoculation:

"Mr. J. F. Summers, Chicago, Ill.

"Dear Sir:—Regarding the necessity of inoculating either the seed or the soil when growing legumes would say that there is no factor so largely responsible for the success of Alfalfa seedlings in the corn belt as that of inoculation.

"A few years ago it was supposed that Alfalfa could be grown successfully in Iowa without inoculation. Definite comparative co-operative experiments conducted by between two and three hundred farmers throughout the counties of Iowa show that inoculation is absolutely essential on over 80 per cent of our soils in order to secure the best results with the Alfalfa crop. On many farms the seedlings were absolute failures on that portion of the field not inoculated, while a perfect stand and a vigorous growth were secured where inoculating material had been used.

"There is no question but that many of our Red Clover seedlings fail because of the same cause.

"We have seen large fields of Sweet Clover which failed entirely to return a profitable crop owing to the fact that the seed had not been inoculated, while on the same farm and on the same soil a very vigorous growth was secured where inoculating material was used.

"Many of the Soy Beans, Cow Peas, Field Peas and Vetch which have been sown in Iowa have been considered a failure, and these crops have been condemned simply because the soils did not contain the bacteria which would make it possible for these crops to utilize the inexhaustible supply of nitrogen in the air. These crops should never be seeded except when the seed or soil is inoculated.

"Yours very truly,

H. D. HUGHES,  
Farm Crops Department."

Ames, Iowa.

PRICES— $\frac{1}{2}$  acre size, 60c; 1 acre size, \$1.00; 5 acre size, \$4.00; 10 acre size, \$7.50; 20 acre size, \$14.00.





Sweet Clover Produces Big Hay Crops.

## Sweet Clover

### The Great Soil Renovator for Waste Land and Run-Down Farms

Probably no other crop has sprung into prominence or gained in favor as a cultivated crop so rapidly as has Sweet Clover, and it has not only become one of the most valuable hay and pasture crops, but its value for soil improvement is without an equal.

Sweet Clover makes a strong vigorous growth and is one of the most hardy plants of the Clover family. It will make a crop for you on land where nothing else will grow.

#### Sweet Clover the Greatest Soil Builder Known

On account of the extreme root development of the Sweet Clover enormous quantities of plant food are added to your soil from the root system alone; and it has been estimated that about twenty tons of green manure is secured from the root system of a Sweet Clover crop. Sweet Clover is one of the greatest cover crops ever grown, as it not only prevents the soil from gullyng and washing, but it takes up large quantities of potassium and phosphorus which would leak out of the soil during the winter and stores it in its root system where it becomes deposited in the surface soil and becomes available plant food for other crops when the roots decay. You cannot afford to not sow some of this great soil builder upon your farm, for no crop rotation is complete without it, and since you can now secure scarified seed it makes it very easy to secure a stand, and you should at least sow a few acres this year.

#### Sweet Clover a Great Money Crop

Sweet Clover is one of the greatest money crops which can be produced. The second year you secure a crop of hay, and a crop of seed which is unquestionably the greatest revenue producer that can be grown, as Sweet Clover invariably yields from four to eight bushels per acre, which is equivalent to fifty or seventy-five dollars per acre, and when you take into consideration that you have also secured on the same land a hay crop which at a very conservative estimate is worth twenty-five dollars per acre, besides a quantity of early pasture and fertility that is added to your farm, you cannot beat Sweet Clover for a money crop. Many have not grown Sweet Clover for the simple reason that they had difficulty in getting this seed to germinate, but the sowing of Scarified Seeds makes it very easy to secure a stand.

#### Sweet Clover as a Hay Crop

Sweet Clover is rapidly coming into favor as a feed for all classes of live stock, and is especially desirable for growing under conditions where other kinds of hay cannot be grown. Sweet Clover will grow on almost any soil and under the most adverse conditions, for it resists drouth better than any of the other legumes and its ability to pull through a dry spell during the first summer, enabling one to secure a stand when other legumes would be a failure is a feature that should not be overlooked. When selecting a legume to sow upon your farm this year, especially if you have been having trouble securing a stand of clover on account of the hot, dry weather after the grain crop has been removed, try Sweet Clover, for if you sow Sweet Clover, the seed of which has been scarified and inoculated, the young plants will have such a start by the time that the grain crop

is removed, that the hot dry weather will have but little effect upon them.

#### Sweet Clover as a Pasture Crop

Sweet Clover makes excellent pasture for horses, sheep, cattle and hogs, and produces the first green bite in the spring and thrives well during the midsummer drouth, enabling one to keep a larger number of animals on a more limited acreage than with any other pasture crop.

There is very little danger of bloating when stock are being pastured upon Sweet Clover, and this fact makes it very desirable as a pasture crop, in fact, much better than Alfalfa.

#### Sweet Clover Should Be Inoculated to Obtain the Very Best Results

Sweet Clover being a legume should be inoculated to secure the best results, and while Sweet Clover has been grown successfully without inoculation, it makes a much better and more satisfactory growth when inoculated. The early growth has been made more vigorous by thorough inoculation, which more than pays one for the extra expense and trouble involved. The use of pure cultures is to be recommended for this process as the old method which consisted of securing soil from a field upon which Sweet Clover had formerly been grown has, because of the extra labor involved, and the danger from importing serious weed pests and plant diseases, proven more expensive than inoculation by the pure culture method. We wish to recommend to you our Bacteria Tubercle-germ for Sweet Clover, a scientific preparation for inoculating Sweet Clover which we believe has no superior and few equals.

#### Sow Scarified Seed

It is absolutely essential in order to secure a stand of Sweet Clover to sow Scarified Seed. Numerous experiments have shown that from 40 to 80 per cent of Sweet Clover seed will not germinate because of the seed coat being so hard that the moisture cannot penetrate it.

Professor Hughes, of the Iowa Station, has perfected a scarifying machine by means of which Sweet Clover and other legumes having hard seed coats are so treated that moisture may gain access to the embryo of the seed and cause it to germinate more readily. Our plant is equipped with one of these scarifying machines, which places us in a position to offer you nothing but Scarified Sweet Clover seed, and when you take into consideration the fact that from 40 to 80 per cent of the Sweet Clover seed sown does not germinate, you can readily figure the advantages to be gained by sowing only our Scarified Seed. Remember, in ordering Sweet Clover seed that the American Mutual Seed Company will ship you nothing but scarified seed. The placing of this scarified seed upon the market, we believe, will completely revolutionize the farming business, for it will enable the farmer to secure stands of this wonderful crop so easily that you will find but few run down, impoverished farms, while in the case of former years the farmer has because of his inability to get a stand of the different legumes, been forced to crop his farm until it has become low in plant food.





We Paid One of Our Growers \$5,400 for the Seed from 35 Acres.

## All Leading Agricultural Men Indorse Sweet Clover

### Iowa Homestead Indorses All that is Claimed for Sweet Clover

J. F. Summers, Chicago, Ill.

October 22, 1915.

Dear Sir:—I am glad to learn that you are engaged in a campaign to popularize the growing of Sweet Clover. There is an important place for this crop, because so many uses can be made of it. As a soil builder it is not excelled, if equaled, by any other crop that I am familiar with. It furnishes excellent pasture, and, unlike other legumes, it never produces bloating. When cut at the right time it produces good, palatable hay, and of course it is a very heavy yielder.

I predict that Sweet Clover will be used quite extensively in the future in fitting land for Alfalfa. The same organism lives on the roots of both crops, but it is much easier to get a stand of Sweet Clover than Alfalfa, and that is why it can be used to great advantage by those who wish to grow a perennial legume like Alfalfa. I think it is an excellent thing to sow a little Sweet Clover along with Timothy and Clover, and even though it does not mature at the same time that these crops mature it is an excellent thing to have scattering plants of Sweet Clover, because the roots penetrate so deeply, and, as said before, growing this crop invariably gets the ground in good condition for Alfalfa.

Very truly yours,  
JAS. ATKINSON, Editor, Homestead.

### John M. Evvard, Assistant Chief in Animal Husbandry Iowa Experiment Station. Secures Some Phenomenal Results with Hogs Pastured on Sweet Clover

An acre of Sweet Clover pasture in 1910 in conjunction with an average daily grain ration of practically four pounds per 100 pounds live weight daily produced an average daily gain of 1.02 pounds on each hog. With corn at 50 cents a bushel, the gains cost \$3.70 a hundred. The returns of an acre show a net profit of \$42.07 and \$74.50, with corn at 50 cents and hogs \$5.00 and \$6.00 respectively, per hundred weight.

A bushel of corn fed to \$5.00 and \$6.00 hogs upon Sweet Clover netted, after all expenses for rental, plowing, discing, harrowing, seeding and seed were paid, 73.2 and 91 cents respectively. Assuming that a bushel of corn will produce 10 pounds of pork, and deducting the amount due to corn, we find that an acre of Sweet Clover forage is estimated to produce 354.3 pounds of pork.

### Successful Farming Considers Sweet Clover Very Valuable from both a Feeding and Fertilizing Standpoint

Mr. J. F. Summers.

It is difficult to understand why the many valuable points of Sweet Clover were not discovered sooner, and, now that its value is conclusively demonstrated, it is equally difficult to understand why it is not much more extensively grown. Any one of its many good points are enough to recommend it.

For quantity and quality of hay and pasture, Sweet Clover ranks with Alfalfa; as a seed crop it can be made exceedingly profitable; and, for soil improvement, it heads the list.

Add to the above good points the fact that Sweet Clover can be grown upon land which will not produce Alfalfa and other Clovers successfully, and also the fact that it is exceptionally well adapted to use in a crop rotation, and you'll have to admit that it is hard to say too much in favor of Sweet Clover. Yours very truly,

SUCCESSFUL FARMING, A. H. Snyder, Associate Editor.

### Prof. H. D. Hughes of the Agronomy Dept., Iowa State Agricultural College, Believes an Acre of Sweet Clover Equal to Three or Four Acres of Red Clover

Sweet Clover is recognized as the greatest soil builder which we have. Each acre of Sweet Clover will add three to four times as much nitrogen to the farm as will Red Clover.

It has other uses, however, in addition to its soil building properties. At the Iowa Experiment Station, Sweet Clover has been grown and fed for several years, and each year we come to think more of it. Livestock eat the hay with relish after they have become accustomed

to it, and if the Clover is cut early when about two feet high, it has apparently the same feeding value as Alfalfa.

The Sweet Clover has been used very successfully for pasture purposes, both with sheep and hogs. It is possible to pasture all classes of stock on Sweet Clover, since there is no danger of bloating with it.

### Plain Facts About Sweet Clover

1. It is an efficient soil renovator by reason of the large amounts of nitrogen it is able to take from the air as well as the humus added to the soil when it is turned under or from the decay of its roots.
2. Sweet Clover will grow on soils too low in humus content for any other legumes to grow.
3. Its large roots facilitate drainage and do much to break up and improve the texture of the soil lying below the reach of the plow, as the roots rapidly decay the effect is immediate.
4. Never troublesome in cultivated fields as it does not live more than two years without reseeding.
5. The failures to not secure a stand of Sweet Clover are due to sowing seed which has not been scarified and to a loose seed bed.
6. Superior to Alfalfa for pasture and nearly equal to Alfalfa for hay.

### Growing the Crop

**SOIL**—It grows on all soils and under almost all conditions, and will thrive on clay, sand, hard pan, rocky and alkali land, if the seed has been scarified and inoculated.

**SEEDING**—The ground should be carefully prepared, and if possible it should be sown on corn ground, with oats or barley as a nurse crop, as early in the spring as possible. The seed should be drilled in at the rate of 12 to 15 pounds per acre or 10 to 12 pounds of scarified seed. Where this method of seeding is followed it is often possible to secure a hay crop after the grain has been removed, or in case a hay crop is not cut, there is always an abundance of pasture during the fall from such a method of seeding. Although it is profitable to sow Sweet Clover with spring small grain, it may also be sown alone or sown during the winter on pasture or rough land without any preparation, although this method is not to be recommended, it has been practiced in many instances with exceedingly good results.

**HARVESTING**—When Sweet Clover is cut for hay, it should be cut just before it commences to bloom. Sweet Clover cut at this stage will retain a higher percentage of its leaves, and produces hay which is more palatable, as the stems have not as yet become woody. Sweet Clover hay should be handled much the same as Alfalfa; that is, the mower should be followed by the tedder; should then be raked up in windrows and after laying in the windrows a short time should be placed in shocks to cure. In the North-Central States a crop of hay and a crop of seed is harvested the second year.

In harvesting Sweet Clover for seed it is necessary to cut it before all the seed is fully matured, as it shatters so badly that a large percentage of the seed will be lost unless it is harvested just as the lower spike-like seed pods commence to ripen. In order to lessen the loss from shattering, Sweet Clover should be cut when wet with dew. When properly harvested and taken care of, yields of from four to eight bushels is about the average production.

**ERADICATION**—There is no danger, as was formerly thought, of Sweet Clover becoming a pest. It is a biennial and dies at the end of the second year, unless allowed to reseed itself.

### Six Reasons Why You Should Sow Sweet Clover

1. It will produce a greater cash income per acre than any other crop.
2. It cannot be equaled for pasture.
3. It is the greatest soil builder known.
4. It will thrive on any soil.
5. It is the means of inoculating your land to secure a stand of Alfalfa.
6. It is the King of the Clover Family, and to sow it once is to become convinced.





Don't this Crop Look Good with Hay at \$35.00 a Ton.

### Why Buy Commercial Fertilizer When You Can Secure a Stand of Sweet Clover by Sowing Our Scarified Seed?

Many will say, "O well, Sweet Clover will add nitrogen to the soil, but it does not take the place of a fertilizer." Listen. Did you ever take the pains to study the root development of the Sweet Clover plant and figure just how far down into the soil they reached, opening up a new source of potassium and phosphates which has never before been explored. Well, that is just what it does. Its roots go down to depths which no other plant reaches, gathering up plant food in different forms and incorporating it into its root system, when upon the decay of the roots it becomes available for other crops, thereby building up a permanent system of agriculture by the use of this wonderful crop in your rotation.

Read what Professor Hughes, inventor of the scarifying machine and one of the greatest authorities in the world on Sweet Clover, has to say about the importance of Sowing Scarified Seed:

Mr. J. F. Summers, Chicago, Ill.

Dear Mr. Summers:—Replying to your letter of a few days since, seedsmen all over the country have long recognized the fact that much of our Clover seed did not give satisfactory germination, owing to the fact that the hard seed coat made it impossible for the seed to absorb moisture, and that as a result it was impossible for them to germinate.

Two European seed houses some years ago constructed machines for treating Clover seed in such a way as to scarify the seed coat, making possible a high germination. These machines were considered so valuable that the firms concerned have gone to considerable trouble and expense to keep the exact construction of the machine secret, in order that competitors might not be able to construct similar machines and compete with them in furnishing scarified seed.

Sweet Clover seed should never be seeded without first scarifying. Unhulled seed will seldom germinate better than 15 per cent. From 20 to 30 pounds of Sweet Clover seed are usually recommended per acre. Ten pounds of scarified seed will give a perfect stand and a number of men have reported using only 5 pounds of scarified seed per acre, and securing a satisfactory stand.

Many samples of Alfalfa seed contain a relatively high per cent of hard seed. By scarifying practically all of these seed can be made to germinate. The harder the strain of Alfalfa (the high priced seed) the larger the per cent of seed, which, while not dead, are unable to germinate owing to the impervious nature of the seed coat.

Yours very truly,

H. D. HUGHES.

### Why You Should Buy Your Sweet Clover Seed from the American Mutual Seed Company

We are large handlers of Sweet Clover Seed, and as we make a specialty of Sweet Clover, we are in a better position to serve you than those who do not handle as large quantities as we do. Buying in large quantities as we do, we are able to make you the lowest price, quality considered, which you can secure. Our cleaning and grading machinery is especially adapted to taking out all of the impurities in Sweet Clover, and we are therefore enabled to offer you the highest grade seed upon the market. Our buyers cover a large territory, and are on the job getting this seed together from the time that threshing begins until snow flies. Because of our being constantly in touch with the market we can offer you values which no other seedsmen can duplicate.

Our prices are absolutely right for the best quality of seed. Don't confuse them with those of dealers offering you poor, adulterated, low grade seed, and remember in ordering Sweet Clover from us that it is shipped subject to your approval, and is backed by our Absolute Guarantee, for "We Are Not Satisfied, Unless You Are."

## Varieties of Sweet Clover

### All Our Seed Has Been Scarified White Blossom Sweet Clover

This is the most popular and most common variety known. It is a biennial the same as Red Clover and there isn't a farm in the United States upon which it cannot be grown with profit. It meets a long felt want for a legume which will thrive on the poor soil and under adverse climatic conditions. One of the strongest recommendations in favor of Sweet Clover is that it will produce enormous quantities of succulent pasturage, and that cattle and sheep will not bloat upon it. Because of the fact that Sweet Clover can be pastured in the humid sections whether it be wet or dry, makes it more desirable than Alfalfa as a pasture crop.

The seed crop of the White Blossom Sweet Clover makes it a very profitable crop for it not only sells for a good price, but yields extremely well. Yields of from four to eight bushels per acre are not at all uncommon.

Because of the fact that the seed of the White Blossom Sweet Clover brings much higher price than either the Yellow Blossom Biennial or the Yellow Blossom Annual, be sure that firms who quote you on cheaper seed than we are listing are supplying you with the pure and unadulterated White Blossom Sweet Clover, and also beware of seed which contains noxious weeds, for the highest quality seed is what you want when you are sowing White Blossom Sweet Clover. Because of the fact that in some sections, especially in the humid regions Sweet Clover is placed upon the market in the unhulled state, and to the fact that unless the seed and the straw contain no moisture whatever at the time of threshing, it is very hard to separate the seed from the hull, and for these reasons we handle both the hulled and unhulled Sweet Clover. See green list for prices.

### Yellow Blossom Biennial Sweet Clover

This variety does not grow quite as large as the White Blossom Sweet Clover, and for that reason it is not so desirable for fertilizing purposes. It is more spreading in nature, and not as heavy a yielder. The seed is much cheaper than that of the White Blossom variety; and we can save you money if you wish to sow it. There is more of this variety of Sweet Clover being sown every year, which leads us to believe that it is becoming more popular, and although we do not recommend the sowing of it in preference to White Blossom Clover, we feel that there is considerable merit to this variety, and do not hesitate to recommend it especially for pasture and hay. Our seed is of the very finest quality and has all been scarified, and we feel sure that you will be pleased with it. See green list for prices.

### Yellow Blossom Annual Sweet Clover

This variety of Sweet Clover is used almost exclusively as a fertilizing crop, being sown with small grain in the spring and plowed under in the fall. Because of its quick growing characteristics, it has become quite popular for this purpose, and is used by many for inoculating land before seeding to Alfalfa. The seed is much cheaper than the White Blossom variety and is being used quite extensively. It is also sown to some extent in the extreme Southern States where it lives through the winter. We have a very nice lot of this seed on hand which shows a high purity test, and we know that it will, if properly inoculated, meet your wants for a quick growing, hardy legume to plow under this fall.



## Vetch, the Greatest Soil Builder Known

The demand for an early spring forage crop is increasing in almost every section of the United States. The Vetches are rapidly becoming popular for this purpose as the farmers are coming to know of their great value. They supply a very succulent forage from early spring until late autumn, and they will remain green under the snow all winter and furnish the first green bite in late winter and early spring, which time is always a critical period in live stock management. There is always a time during this period when the fodder and other dry forage crops do not satisfy the appetites of the farm animals. It is to bridge over this critical period that the Vetches have become such a valuable addition to the food stuffs of the live stock farmer. The Vetches are nitrogen gatherers like Clover. They are also useful because they form an early mulch in the spring and early summer, shading the ground and preventing the growth of weeds. They retard the loss of valuable plant food that is going on wherever the soil is left bare and unprotected.

We want you to know that we are enthusiastic over this crop, not because we have seed to sell, but because we believe that a more profitable system of farming can be produced by growing Vetch in the crop rotation than by any other method, and we know that it is worth a trial. We only wish we might in some way place the good qualities of this crop before you so you would recognize its most extraordinary qualifications. Think of it! A crop which you can sow on any kind of soil, and it will not only produce a heavy cutting of the most palatable forage known, but furnish green forage at a time when it bridges over the most critical period for the live stock farmer.

### Vetch a Great Cover Crop

Vetch is without doubt one of the best crops that can be grown for a cover crop. It is especially adapted to growing under Eastern conditions, and if you have a young orchard in which you wish to grow a cover crop, by all means seed it to Vetch. It is a heavy carrier of root tubercles, and these increase more during cold weather on Vetch than on any other crop. It makes good forage that is relished by all classes of stock, and gathers more nitrogen than anything else that can be grown for a cover crop. You are not only protecting your soil from the elements when you sow Vetch as a cover crop, but you are producing on this soil the most succulent and nutritious feed that you could grow, and after feeding off the crop you are leaving more fertility in the soil than you had before.

### Read What Mr. Lighty Says

Read what Mr. L. W. Lighty, a shrewd practical farmer from Pennsylvania, has to say about Vetch in *The National Stockman and Farmer*: "Sow any time after the middle of July to the end of October. If you never grew vetch before it may not succeed so well the first year, as it, like all legumes, does better on inoculated soil, and the inoculation comes from the growing of the plant. My preference is to sow a half-bushel of vetch and a bushel to a bushel and a half of rye to the acre. If you do not care to plow early in the spring, and the land is fairly fertile, a peck of vetch and three pecks of rye will make quite a mass of vegetable matter. I prefer heavy seeding so as to get a dense growth and prevent washing during winter, and it also gives me more material to plow under early in the spring. Would it pay to sow vetch the last working of corn if the stubble was to be sowed to wheat? No, the growth of the vetch is best in cool weather, so you would have but little growth, besides it would be hard to destroy all the vetch plants and they would be in your wheat like cockle; and almost impossible to separate if you would wish to sell the wheat. Vetch, like rye, may be a weed, and you do not want it in your seed or selling wheat. Would not crimson clover be preferable to vetch? It may be, in fact is, in some soils preferable to vetch. I note wherever there is a good proportion of sharp sand in the soil, crimson clover flourishes, but in the clayey or shaley soils, devoid of sand, crimson clover is an unsatisfactory manure crop because it thrives so poorly. Rye and vetch are generally preferable because they grow and thrive under the most adverse conditions. Being a sort of weed, they flourish in spite of neglect, do not winter-kill, nor do insects disturb them. Crimson clover is delicate and wants things just so or it will quit. I prefer the robust, rough-and-ready plant that is there when I come to plow it under. If crimson clover succeeds on your soil sow it, but rather than have the soil lie bare during the winter, by all means sow rye and vetch. As a soiling crop this rye and vetch mixture is superior to the crimson clover."

### Vetch Is a Wonderful Soil Builder

Vetch will make a good showing on land so poor that the Clovers will not do well, and because of this fact it is valuable for improving land where the Clovers cannot be grown. It needs a good seed bed with plenty of moisture to begin with, but after it is established it will stand almost any degree of heat, cold or drought. For soil improvement there is hardly any crop that fits in so well under all conditions as Vetch. It will grow and enrich the soil during the Fall, Winter and early Spring, and in many sections of the South it produces an enormous crop during the win-



Vetch.

ter months when other crops would be dormant. When the whole crop is plowed under Vetch enriches the soil very rapidly. The crop not only benefits the soil by adding a large amount of nitrogen, but it greatly improves the mechanical conditions as it supplies a large amount of organic matter. It is especially well adapted to growing under Southern conditions, as it has been found to exceed very well Bermuda and Japan Clover. Bermuda and Japan Clovers make their growth during the summer and the Vetch during the early spring. Hence, this crop enables one to produce a crop from the same soil at all seasons of the year. Vetch succeeds best when grown in connection with some other crop, preferably Wheat or Rye. This is because of the fact that its trailing habit requires some other crop to support it. When Oats are sown in connection with this crop it should be sown at the rate of about 20 to 30 pounds of Vetch to the acre and 1½ to 2 bushels of oats. If no companion crop is grown it should be sown at the rate of about at least a bushel per acre on the best soil, and if the land is very poor more will be needed.

### Vetch is a Legume and Should Be Inoculated

Vetch should be inoculated to secure the very best of results. It is a leguminous crop and gathers nitrogen from the air and stores it in the Tubercles on its roots, but in order for it to carry out this process it is necessary that the seed should be inoculated, as otherwise the young plants will not make the strong, vigorous growth that they would otherwise. Inoculating insures a crop, and while many of our customers report that they succeed with Vetch without inoculating, it seems to us that it does not pay to take any chances when one can inoculate so easily by the pure culture method. We have a special pure culture bacteria for this crop, and when writing us for Tubercle Germ be sure and mention that you want the Vetch Bacteria.

**WINTER OR HAIRY VETCH.** Hairy Vetch withstands winter's cold and summer's drouth. Plant at least an acre of it this season. It will not disappoint you, for it is unquestionably one of the greatest fertilizers and soil builders ever offered to the American farmer, and we believe that it is to the farmer of the Northwest what the Cow Pea has been to the farmer of the Southern States, and we know you will be well pleased with it.

**PRICE**—See green list for prices. Due to the unsettled condition of the market, we are unable to quote firm prices at the time of going to press.

**SPRING VETCH.** Spring Vetch is a nutritious crop, and there is an ever increasing demand for Spring Vetch, as farmers come to realize the importance of the Vetch crop. Spring Vetch is used for much the same purpose as the Hairy Vetch, but it will not thrive on poor soil or withstand the extremes of weather so successfully. When seeded with Oats a bushel of each should be sown.

See green list for lowest quotations.





This Crop Improves the Soil and Produces the Best of Feed.

## Cow Peas

Closely allied with Soy Beans and ranking along with Clover as one of the greatest soil builders known is Cow Peas. In fact, this crop is the greatest soil renovator known. No other crop will build up a depleted soil as quickly as Cow Peas. They penetrate the subsoil when it is an impossibility to secure a stand of Clover or Alfalfa, and because of their ability to do this, have proved of great value in certain sections. Cow Peas not only gather nitrogen from the air and store it in the tubercles on its roots in the soil, thereby increasing the nitrogen content of the soil, but they bring up the potash and phosphorous from the lower stratas of soil and incorporate these elements of fertility in their plant cells where they become available for the succeeding crops. Cow Peas are without a doubt the best crop that can be grown to plow under for a green manure crop, and when used in this way, quicker results can be obtained than by any other method of crop rotation.

### Cow Peas Rich in Food Value

Cow Peas are the most nutritious of feeds and can be utilized in many ways. The most common practice followed by stockmen however, is to pasture them off with hogs or cattle, cut and feed the hay or use for silage.

Cow Pea hay is a very nutritious feed and is relished by all kinds of live stock. It is very nearly identical to wheat bran in chemical composition and is one of the most valuable of roughages known for balancing the feeding ration. It is especially valuable from a milk producing standpoint.

The peas are very much relished by hogs and sheep, and being high in protein are most valuable for feeding young and growing stock. A very popular practice followed is to allow the peas to reach the ripening stage and then turn in the stock and allow them to clean them up.

Cow Peas when cut green and placed in the silo with corn greatly increase the palatability of the silage as well as increasing the feeding value, and as the two crops usually mature about the same time, they may be used in combination and produce the best silage you can secure.

### Cow Peas Make a Great Crop When Grown with Corn

Cow Peas can be grown to an advantage with the corn crop, and you can secure an attachment for your planter that will drop two or three peas in each hill of corn. You can by following this practice grow two crops when only one grew before, and grow better corn than if your cow peas were not present. The best way to utilize these two crops is to cut them and put them in the silo or turn in the young pigs and lambs and they will eat the peas and you can harvest the corn crop in the usual way. We have followed the practice on our own farms, of growing cow peas with the corn, and we know of no crops that produce the revenues that these crops will when grown in this way.

### A Mistaken Idea

Many have formed the idea that the cow pea is only adapted to the Southern States, and this is not the case. While the cow pea is cultivated extensively in the Southern States and has been the means of building up and reclaiming the South from the one crop system, they are of equal value right here in the corn belt, and early maturing varieties like the New Era can be grown successfully much farther north.

## Varieties of Cow Peas

**WHIP-POOR-WILL.** This is a medium early maturing variety which gives most excellent results. They produce a brown-speckled, medium-sized pea and are a very prolific seed yielder. This is the variety most commonly used in sowing broadcast. When planted in corn about one bushel to the acre is usually sown, but when sown for hay from one and one-half to two bushels are used.

See price list enclosed.

**NEW ERA COW PEAS.** This is the earliest variety of Cow Peas grown. It matures in about 75 days. It is very easily handled by machinery, which is a strong point in recommending it to the farmer of the corn belt. It will also make a crop when sown in the stubble after small grain. They make splendid hay, and as the vines are somewhat smaller than the later varieties they are more easily cured. No farmer can afford to be without at least a few New Era, for there is room on every farm for a few of them to be grown at a profit. No crop rotation is complete without them. The peas are somewhat small in size and you will find a bushel per acre will be ample seed.

See price list enclosed.

**BLACK EYE COW PEAS.** This variety of Cow Peas is very much in demand at present as they are being used in large quantities for canning purposes. The plants grow in a bush shape and hold the peas off the ground quite well. These peas are used in the South by market gardeners for selling green. The seed of this variety is very short this year and if you intend sowing any we would urge upon you to place your order at once.

See price list for latest quotation.

**MIXED COW PEAS.** A large quantity of the Cow Peas that come upon the market are mixed, and composed of different varieties, which have been grown together or have been mixed in transit or country points. These consequently do not sell for as high a price as the straight varieties of Cow Peas, but they will produce a heavy growth of forage and are invaluable for plowing under for soil improving purposes. We have quite a quantity of these on hand and are able to offer them at a very reasonable price.

See price list for latest quotation.

## GROWING THE CROP

**SOIL**—Cow Peas will grow and thrive on soils where other field crops would die, although they will grow better on rich soil. They produce an excessive vine in proportion to the seed. A sandy or light clay loam is considered the best for seed production.

**SEEDING**—The rate of seeding per acre varies according to the variety used, but the usual plan followed is a bushel for the late varieties and a bushel and one-half of the medium early, two bushels for the New Eras, and two or three bushels of the Canadian Field. They are usually put in with a grain drill and with every other spout plugged up, but they are sometimes sown in wider rows with a corn planter, and given two or three cultivations, especially when grown for seed.

**HARVESTING**—Cow Peas should be cut for hay when most of the pods are full grown and commencing to turn. They should be cut and placed in small piles and allowed to remain in the field for four or five days until thoroughly dry. They then produce hay of finest quality.





A Large Field of Soy Beans, the Greatest Soil Builder Known.

## Soy Beans

No crop has increased in popularity in recent years more rapidly than the Soy Bean, and it is rapidly becoming one of the most profitable crops which can be grown throughout the corn belt. It was formerly thought that it could not be grown only in a limited territory, but the result of the numerous tests by the several State experiment stations and by the United States Department of Agriculture has proven that Soy Beans may be grown over a much greater area than was at first supposed possible.

Generally speaking, the Soy Bean requires the same temperature as corn. Soy Beans are wonderful soil improvers; they belong to the family of legumes, therefore have the power of taking nitrogen from the air and storing the most valuable of all plant foods in the nodules of its roots, thereby leaving the soil upon which they were grown in a higher state of productivity for the ensuing crop than it was before.

Soy Beans may be utilized either as a soiling crop, pasture crop, hay crop or grown for seed. As a soiling crop for cows, no crop surpasses them for producing a high yield of milk. Hogs turned into a patch of Soy Beans as the beans are commencing to form will make a phenomenal growth. The Soy Beans will produce under favorable conditions 12 to 13 tons of fresh fodder per acre, containing large amounts of crude protein and fat, which makes an excellent forage to mix in with corn fodder or some other forage plant high in carbohydrate but low in protein.

If grown for seed this crop will produce from 25 to 40 bushels per acre of the most concentrated food stuff that can be produced upon the farm, and the ground seed is equal pound for pound with oil meal in feeding value, and it is claimed that butter made from cows fed this meal has an exceedingly fine texture and flavor.

Soy Beans are used quite extensively in connection with cow peas, for when the two are grown together they support the cow pea and greatly facilitate the harvesting and curing of the crop. They are very drought-resistant, and seem to thrive well during the hot dry weather of the summer months, and produce an abundance of succulent and nutritious feed at a time when pastures are dry and brown.

No farmer can afford to be without at least a limited acreage of this most valuable crop, for when he can produce a food stuff right on his own farm that is in every way equal if not superior to the most concentrated commercial feeding stuff upon the market, it seems like folly to pay out money for commercial feed when Soy Beans can be grown so easily.

### Varieties

#### Mammoth Yellow

This is a late maturing variety and will mature seed north of the Ohio River. It is a very popular variety for growing, however, in the Central States for forage and ensilage purposes. It produces a large growth of vines which makes it a very desirable variety to plow under.

Owing to unsettled market we are unable to quote firm prices. See list.

#### Medium Early Yellow

This variety is a very popular one for growing throughout the Central States, as it matures earlier than the Mammoth Yellow. It does not, however, produce as much forage, but it produces quite a heavy crop of Beans, which makes it a very desirable variety to grow.

Owing to unsettled market we are unable to quote firm prices. See list.

#### Ito San

This is an old standard variety which is quite early and one of the best sorts grown. It is especially adapted to a Northern latitude, and a very heavy yielder of Beans, but it does not produce the forage that some of the later varieties do. It matures in about 110 days.

Owing to unsettled market we are unable to quote firm prices. See list.

#### Black Ebony

The Black Soy Beans are becoming very popular in this section and produce wonderful crops of rich nutritious beans. We have a nice supply of this seed stock that has been carefully re-cleaned and we feel sure that they will please you.

Owing to unsettled market we are unable to quote firm prices. See list.

#### Growing the Crop

**SOIL**—Soil requirements are much the same as those of corn, although Soy Beans will make a very satisfactory growth on poorer soil than will corn if the seed is properly inoculated. It is not necessary to have a well drained soil, but the water should not stand on the ground for any considerable length of time.

**PREPARATION OF SEED BED**—The ground should be well prepared so that the weeds will not be likely to choke out the young plants, and so as to facilitate the development of a good root system.

**SEEDING**—In growing the crop for seed, one-half bushel of seed should be planted per acre. The seed should be planted in rows the same as corn, with a plant on an average of every three inches in a row. When sown broadcast or in drills a bushel to a bushel and one-half are sown per acre. Soy Beans may be planted quite early in the season, but the best results will be obtained if the seeding is postponed until the ground has become thoroughly warm. In case some of the earlier varieties are used seeding may be delayed until after some of the earlier smaller grains have been harvested, making it possible to prepare the ground and secure two crops from the same land in one year, and yet leave the land in better condition than it was before. Another practice is to drill the Beans in between the rows of corn after the last plowing. The best method of seeding depends upon what kind of a crop one desires to harvest.

**TILLAGE**—When the seed has been drilled in rows together or has been sown broadcast, very little cultivation is necessary. Many follow the practice of using a light harrow after seeding on land that is a little foul, as the weeds are liable to get such a start that they will interfere with the growth of the young plants. In case Soy Beans have been planted in rows on ground inclined to bake or pack, it should be stirred after each rain. Care should be taken not to work the field when the plants are wet with dew or rain.

**HARVESTING**—The time for harvesting the Soy Bean crop will depend somewhat upon the use that is to be made of it. The chemical analysis shows that the plants cut when pods are well developed contain larger amounts of protein and fat than those cut at earlier stages, but from feeding experiments it seems that more of the plant will be eaten when cut in the earlier stages. Considering palatability and digestibility, as well as chemical composition it is probable that the best forage will be obtained just when the pods are forming. If used for soiling purposes begin cutting just as the plants are commencing to bloom. If used for hay, when the plants are in full bloom and when the pods just start to form. Soy Bean hay cut at this time is almost identical in feeding value with alfalfa, and for using in connection with corn for silage cannot be beaten. If harvested for the seed crop alone, the harvesting can be facilitated by allowing the crop to stand until most of the leaves have fallen, and sometimes this is the most desirable method. Our seed stock is of the very highest quality and has been furnished us by the very best growers in the business. We also keep on hand at all times Pure Culture Soy Bean Bacteria, which we can furnish you at a minimum cost, and will be glad to give you any further information which you may desire on growing this great soil building crop.



## Our Improved Michigan Field Beans

These are the pearly white Pea Beans that bring the very highest prices. We have these grown especially to meet the demand for a seed bean that will produce the highest yields and command the highest price upon the market. This is the greatest bean that we have ever seen. It is pearly white in color and will yield from one-third to one-half more than the common bean. It is early maturing. The pods are of medium size and as the plants are upright growers they are held well up from the ground.

### An Open Letter from the Secretary on the Bean Question

Dear Friend:

I believe that every farmer should grow at least an acre of beans this year. Beans are about the simplest crop that one can grow and with the present food shortage that we are facing, we believe that it is the patriotic duty of every farmer to at least grow an acre of beans. Surely somewhere on those broad acres there is an acre of land that could be devoted to this great war crop. You do not need to plant them on your best ground, anywhere will do. The bean is not particular as to soil, but will thrive and make good on soil too poor for growing many crops. Think over the situation. We know that you are working early and late. We know that farm labor is hard to get, and that it seems as if everything that could happen to delay one happens during the busy season.

But leave an acre somewhere for beans. It won't take long to put them in. Kick off the check wire and slip the bean plates in your planter. They can be plowed as easy as corn. You can haul them in this fall when you are not so rushed and if there isn't a bean huller in the neighborhood, leave them in the barn until next winter and flail them out. It isn't such a big job. A bushel will plant an acre and it will mean a big help if we are brought face to face with a food shortage.

Think this over friends and write me and I will see that you get the best lot of beans that it is possible to get and I will not charge you a long price for them either but only enough to cover the cost of production and recleaning. I am devoting a lot of time and spending a lot of money on this bean question this year, and I am not sitting back and telling you what I would do if I were you, but I am putting in forty acres of beans myself. Are you with me?

Yours very truly,

J. F. SUMMERS.

### Don't Miss This Opportunity to Grow a Crop of Beans

No other farm crop has advanced as much in price as beans. It is one of the greatest money making crops that you can grow. This is a year when we will need every bean that can be grown. Think of the millions of bushels that the soldiers in the field alone will consume. Get some of this improved seed stock as it will certainly make you money to grow a crop of beans.

Every farmer should grow a bean crop. Side by side, they will make you more money than any other crop that you can grow. Just figure the profit on an acre of beans yielding 50 or 60 bushels.

The bean that we are offering you in our Improved Michigan is the most marvelous yielder of them all. We consider it the finest, largest yielding and best selling bean known and it will outyield by fully one-third any other bean that we have ever grown. Write us today regarding your seed supply as it will certainly make you more money to start growing beans this year than you can make from any other crop.

Price, postpaid: Pt., 25c; qt., 45c. Ask for prices in larger quantities. Special low prices on bushel lots for acre fields. Write today.

## The Pinto Bean

This is the great bean of the arid Southwest. It thrives in those sections where there is but little rainfall. It has been the means of putting many a homesteader on easy street. If you are a dry land farmer and not growing these beans you certainly should start doing so at once. We have a nice lot of these beans that we grew ourselves on our own farms in Colorado and we can sell these to you at a much lower price than you can secure other beans.

Wouldn't you like to try a hundred pounds of Pinto Beans for your own table? If you have never eaten any you have missed a great treat. They are far superior to the Irish potato or rice to eat regularly and a man can do a hard day's work on them and feel better than on any other diet. Let us ship you a trial 100 pounds. We can ship you these delicious beans, all re-cleaned and ready to cook. Everyone who has ever tried them wants more;



Michigan Field Beans, the Most Marvelous Yielders of All.

and best of all, weevils will never touch them. We have never heard of a weevil in these beans. You cannot make a better investment and you never bought as much good food value in your life for so little money. Once you try them you will never eat any other bean.

### How to Cook the Pinto Bean

Soak over night in soft water if obtainable, and cook the same as any other, using water only at the start. A closely covered vessel is best, in fact, a 5-lb. or 10-lb. lard pail makes a very good utensil. Be sure to cook until thoroughly done. If you wish to add more water, be sure to add only hot water. When almost done, or after they have turned soft, add a piece of fresh or salt pork for seasoning. Fresh pork is best. Be sure not to salt, until after they are done and ready to serve, as salt put in while they are cooking will toughen the skin and delay the cooking. In Eastern altitudes, where it takes 212 degrees to boil water, they should cook done in two to two and a half hours. In New Mexico it usually requires three to three and a half hours, as water boils here at about 190 degrees. When done, serve with Tomato Sauce, Chili Con Carne, or just straight. When you have eaten the first plateful, if you don't ask for a second, there will be something wrong with your appetite.

Price: Pt., 25c; qt., 35c. See price list enclosed for quotations on bushel lots. Also for special prices on 100 lb. lots for table use.

## Canadian Field Peas

This is a variety of Peas that is grown in the Northern part of the United States and throughout the great Northwest. They are frequently sown together with oats at the rate of two and one-half bushels of Peas and two bushels of oats. By so doing a double crop can be secured. It can be threshed at one time and separated with the cleaner. Thousands and thousands of head of sheep are fattened each year throughout the irrigated section of Idaho, Montana, Colorado and Wyoming on this crop by just turning the sheep into the field as the Peas commence to ripen.

They can also be cut when the oats are heading out and used for hay. This hay is of superior quality. Cattle, horses and sheep thrive on it and it is surprising how much forage a small acreage will produce.

The crop of Canadian Field Peas is reported very short and we wish to urge upon you to get in your orders early in order to make sure of getting the seed.

The price of Canadian Field Peas is uncertain at this time and we would refer you to Price List enclosed.





Timothy Brings Big Returns.

## Timothy

We are situated in the heart of the great Timothy Seed producing section of the world, which makes it possible for us to offer you seed which no other seed firm can procure, and at a price they cannot compete with. How do we do this? Did you know there was more Timothy handled in Chicago than any other market in the United States? Did you know that we had a man who kept in touch with all the largest growers in this section and makes it a business to know where the best seed can be obtained and at the best price? That is why, friends, we are able to offer you such extraordinary values in Timothy Seed.

### Our Timothy Seed All New Seed

Every pound of Timothy which we have in stock is new crop seed, and when you consider the fact that Timothy loses its vitality very quickly, you can understand that you will obtain nothing but new crop seed; situated as we are in the heart of the great Timothy producing section of the United States, we are especially well favored to furnish you the best Timothy seed to be obtained, and at the very lowest prices. Buying as we do in such enormous quantities gives us a decided advantage over smaller firms, as we can handle a thousand bushels of Timothy as easily as many of them can handle a hundred bushels, thus cutting our overhead expense to the minimum and saving you money on every bushel of seed which we sell you. Our plant being especially equipped as it is with the most modern and up-to-date machinery for the handling and cleaning of Timothy enables us not only to supply you with the best grades of Timothy which it is possible to prepare, but it also enables us to do so at a minimum cost.

### Be Sure and Get Our Samples and Prices

We take great pride in the fact that we are able to offer our customers such wonderful values in Timothy seed, and it is a pleasure to us to send you samples and quote you prices. We are not afraid of competition, for we know we are in a position to save you money on Timothy seed. Because of the fact that Timothy seed varies greatly in price from time to time we are unable to quote you firm prices, but just drop us a line any time that you are interested and we will send you identical samples of our stock and quote you the very lowest price. Write today and be convinced of our exceptionally low prices on high quality Timothy. Our Pinnacle Brand Timothy is the best that is in the market. Our Economy is choice seed, but contains more hulled seed, and because of that fact sells for less money, but it germinates just as good, and we can especially recommend the seed to you.

Timothy was so called from Timothy Hansen, who introduced it into America in 1720. It is the standard hay crop of the universe. In the United States it comprises three-fourths of the area devoted to tame grasses. It is confined principally to that section of the country north of the Ohio and Potomac rivers and east to the Missouri River, and does not thrive in the hot climate of the South and the arid regions of the West, but is quite extensively grown

in the mountain valleys of the Northwest. It is a short-lived perennial, heavy for its bulk and produces one of the best qualities of hay. It stools out and forms compact stools but does not develop creeping stems or runners.

**COMPOSITION AND FEEDING VALUE**—The feeding value is more or less influenced by the time of cutting. The hay is easily cured with little waste in handling. It is rich in carbohydrates, but low in protein, but when mixed with some of the Clovers produces one of the very best roughages for live stock, as it is very palatable and quite free from dust and easily digested. As a horse-feed it is very much in demand, especially for city trade.

### GROWING THE CROP

**SOIL**—Timothy grows best on moist loams and clays rich in humus. The soil should be finely pulverized and the seed which is very small should not be covered too deeply.

**SEEDING**—Timothy may be sown in the fall or spring. Fall seeding is extensively practiced and the general custom is to sow Timothy on the stubble in the fall and follow with a good harrowing, or else sow it with a crop of fall wheat. The advantages of fall sown Timothy on the stubble are: Timothy does not have to contend with the weeds or the nurse crop, and it makes a much heavier growth than Timothy sown with a grain crop the next spring, and produces a good hay crop and some fall pasture the following year. The seed should be sown quite early in the fall in order that the plants may get a good start before frost. Clover is generally added in the spring when the ground is frozen and honey-combed with cracks.

**HARVESTING**—Timothy has the highest feeding value when it is in what is known as the "second bloom" stage. At this time the seed is in a dough. If it is to be used for home consumption it should be cut at this time, but if it is to be sold to the city trade it should be allowed to ripen a little more. Timothy hay cures quickly and should not remain in the swath more than a day in good haying weather.

In many sections Timothy is cut for seed, which is most generally quite a profitable manner of handling the crop, for although Timothy seed is not usually very high in price, it is a heavy yielder, and can be harvested without much expense.

**CARE OF TIMOTHY MEADOWS**—Timothy meadows require careful treatment after the removal of the hay or seed crop. Although it is not difficult to secure a stand of Timothy, it takes quite a little work to maintain the meadow in a healthy and thriving condition, and owing to the nature of the plant, having a bulb-like enlargement at the base it will stand but little pasturing, as any injury to this bulb affects the next year's growth, as this is where the plant stores its plant food. It is a coarse feeder, and should be given a top dressing of manure quite frequently, and instances have been known where this process has doubled the yield. Do not cut your Timothy too close, as the root system will withstand the drought better and there will be less danger of it killing out if you leave plenty of stubble. Ask for samples and prices.





Red Top Produces Wonderful Crops and Will Grow on any Soil.

## Red Top or Herd's Grass

In the Southeastern portion of this State Red Top is grown almost exclusively. In fact, this section of Illinois is the home of this crop and more seed is produced here than anywhere else in the world. For this reason we are always in a position to furnish you the best quality of this seed, at the lowest price.

Red Top is especially adapted to growing on a wet soil, having an impervious sub-soil. Because of this characteristic it is especially valuable for growing in undrained fields, as it will flourish on wet soil where no other crop will grow. It is better adapted to the heavy clay soil of Southeastern Illinois and Southwestern Kentucky than any other crop.

### Especially Valuable for Pasture and Meadow Mixtures

Red Top is a very valuable grass for growing with Timothy and Clover, as it fills the lower part of the swath and fills the bottom, thereby increasing the tonnage and forming a thick, heavy sod. If you have had trouble in getting a good stand of grass on your pasture or meadow, you should not fail to sow it to Red Top. It's the crop that succeeds when all others fail. Although it is especially adapted to low, wet lands and marshes, it will grow anywhere and can always be depended upon to withstand any hardships. It is a hardy perennial and for New England conditions cannot be surpassed for the meadow or pasture.

Red Top is relished by all live stock, and when properly handled is the most palatable of hay and pasture grasses. The pastures thrive under the very closest grazing. In fact, a Red Top pasture should be kept closely cropped, as the young grass is much more palatable than if allowed to get rank. Red Top hay in order to be of the finest quality, should be cut before it gets too rank, as it is much more palatable than if allowed to ripen.

### Easy to Get a Stand of Red Top

It is very easy to get a stand of Red Top, and many follow the practice of sowing this seed where it is not possible to cultivate the land. While this practice is not to be recommended it illustrates the possibilities of this wonderful crop, and because of its ability to grow when no other crop can be grown, it has been the means of converting many waste places into productive fields. Should you be troubled with gullies, this crop cannot be beaten for stopping the wash, as it forms a thick smut that will catch and hold the soil, and because of this feature has proven a very valuable grass on many farms.

Two grades of this seed are offered for sale. The Red Top in the chaff and the Fancy or hulled seed. We handle only the Fancy or solid seed, so in comparing our prices do not confuse them with the prices of dealers who handle the inferior seed in the chaff.

Red Top sells for a very modest price, and as the seeds are very small an acreage of this crop can be seeded much cheaper than any crop we know of. The fact that Red Top can be grown on any soil and that a large acreage can be seeded so cheaply makes this crop worthy of your consideration if you have had trouble getting a stand of grass.

See Green List enclosed. If you are not getting our Monthly Price List, write us. It will save you money.

## Bromus Inermis

This wonderful crop is meeting with universal favor wherever grown. It is one of these crops that can be grown on any soil and under the most adverse conditions. It is especially adapted to the dry, cool sections of the Northwest. It has been the means of converting thousands of acres of barren waste into a land of beauty and profit. It withstands the adverse conditions of climate and rainfall from year to year, and to secure a stand of this luxuriant grass once is to never be without plenty of hay and pasture. This is the crop that never fails, and as you are growing grasses under dry land conditions, you should certainly not be without this wonderful crop.

### Bromus High in Feeding Value and a Heavy Yields

Bromus is very high in feeding value, as it contains a high per cent of protein, ash and fat, the most necessary constituents in animal feeding stuffs. The quality of the hay and pasture is good, and no grass can be grown that is more relished by all kinds of stock.

Bromus is a very heavy producer and produces an abundance of the very finest hay and pasture. It is especially desirable for growing in those sections where Clover and Timothy do not thrive, and it has been the means of producing thousands of tons of valuable feed upon otherwise unprofitable land. This crop is no experiment. It has passed the experimental stage and you can make no mistake in proving it. It is a success from every standpoint. It is recommended by the highest authorities and we feel certain that you will be pleased with the results you secure from this crop. Our seed stock comes from a reliable source and as we handle this seed in quite large quantities, we are able to make you a much lower price than other dealers.

Price—See price list and remember bags are free.

## Orchard Grass

This grass is particularly adapted to those sections lying east of the Missouri and Arkansas rivers. Wherever it has been given a fair trial it has been placed in the front rank of grasses for permanent pasture. It is a rank, deep rooted perennial and it does not form true sod, as it grows in bunches. It starts very early in the spring and keeps on growing during the hot summer months. It furnishes an enormous amount of green foliage which is very palatable and nutritious. Compared with timothy, it is about 50 per cent richer in protein and ash. It is adapted to a wider range of soils than most any other grass. It grows faster. It resists drought better than timothy or blue grass. It grows well in the shade. This characteristic and the fact that it does not produce a sod have made it very desirable for growing in orchards where cultivation is not practiced.

Price—See price list and remember bags are free.

We are very large dealers in Orchard Grass seed and because of this fact can always save you money on this seed. Our seed stock is grown by the most reliable growers in the business, and you will always find our seed high in germination and purity.





Our Customers that Sow Our Grass Seed Mixture

## Alsike and Timothy Mixed

Alsike and Timothy being both perennials are especially suited to be grown together; both are partial to moist, low lands and ripen at the same time, producing one of the greatest hay and pasture crops known.

### Why We Can Sell This Seed So Cheap

In some sections of the country great quantities of Timothy and Alsike are harvested together for seed, and as the seeds of the two are nearly of the same size, shape and weight, it is impossible to separate them in the cleaning and grading process, and because of this fact we are able to buy these seeds when mixed at a much less price than we could buy them separate and mix them. Hence, we are able to offer you Seed of the combination of two of the greatest Pasture and Hay Crop Plants at a price which will save you from one-third to one-half the cost of your seed. The seed as we buy it in the country, is about one-third Alsike and two-thirds Timothy, which is in about the right proportion for seeding, and taken all in all, I believe that we are in this mixture offering you the greatest value in grass seed which you will ever be able to secure for the money. We know that it will please you, for there are hundreds and hundreds of men throughout this section who would sow nothing else. It certainly does produce a wonderful hay and pasture crop, as the Alsike added to the Timothy forms a thick bottom, greatly increasing the yield and adding to the palatability and feeding value of the crop.

### These Crops Especially Adapted for Growing Together

Alsike and Timothy when grown together greatly aid one another in growth, the Alsike being a legume supplies nitrogen to the soil, thereby greatly promoting the growth of the Timothy. The Timothy supports the Alsike, enabling it to make its best and most rapid growth, and acts as a protection to it during the winter, preventing it from winter-killing. Thus, you will find these two plants reaching their maximum production when grown together. Alsike and Timothy mixed is one of the greatest crops for reclaiming wet lands which have been recently drained, and thousands of acres of it are being sown in sections where the construction of drainage canals have made it possible to reclaim land which was formerly nothing but swamp land, which when newly drained is usually sour and quite often contains a greater or less amount of alkali, making it impossible to produce profitable grain crops upon it. Alsike and Timothy seem to thrive particularly well upon this kind of land, and much greater returns can be obtained from growing this crop on this kind of land than any other crop. Besides, Alsike and Timothy when grown on this new-reclaimed land, will add the necessary humus to the soil to place it in condition so that a bumper grain crop can be grown upon it later. This mixture of these two great perennials fulfills a mission in reclaiming these newly drained areas which cannot be accomplished by the growing of any other crop.

Another most important feature to take into consideration in regard to Timothy and Alsike is the fact that they are both perennials, and you do not have to be re-seeding them every year or every two years, but when you sow them obtain a permanent meadow or pasture which will be there until you want to break it up. This fact should not be lost sight of when ordering the seed for your meadow or pasture, for it is not always convenient to have to break up a meadow or pasture every two years, as you have to do when using some of the other Clovers; we do not believe you could do better than to use Timothy and Alsike for seeding any land which you may want to sow. Timothy and Alsike will thrive on any land located anywhere within the clover belt, for although this crop reaches its highest state of perfection on moist, low land, it can be grown anywhere with good results.

### Alsike and Timothy the Greatest Feed You Can Grow

Alsike and Timothy hay is becoming recognized as one of the most desirable hays upon the market, for as the teamsters and horse men in the cities are becoming educated to its high feeding value, it is bringing a premium over any other mixed hay. Alsike and Timothy Hay is much more easily cured than is the hay of Clover and Timothy, for the stems are smaller and when mixed with the Timothy hay seem to dry out readily and still retain their color and leaves, producing one of the most palatable and nutritious hays which one can find for any and all kinds of stock.

We are very enthusiastic over these two great crops when grown in combination, for we believe in them the wide-awake, progressive farmer will find a crop which will be of material use to him, and one which will not only be the means of his securing a big revenue from land which was formerly waste, but one which will enable him to sow a larger acreage at a small cost than it would otherwise be possible for him to do.

This mixture, as we have formerly stated, varies accordingly as it was grown, but it averages around one-third Alsike and two-thirds Timothy, and should be sown at the rate of 12 to 15 pounds per acre.

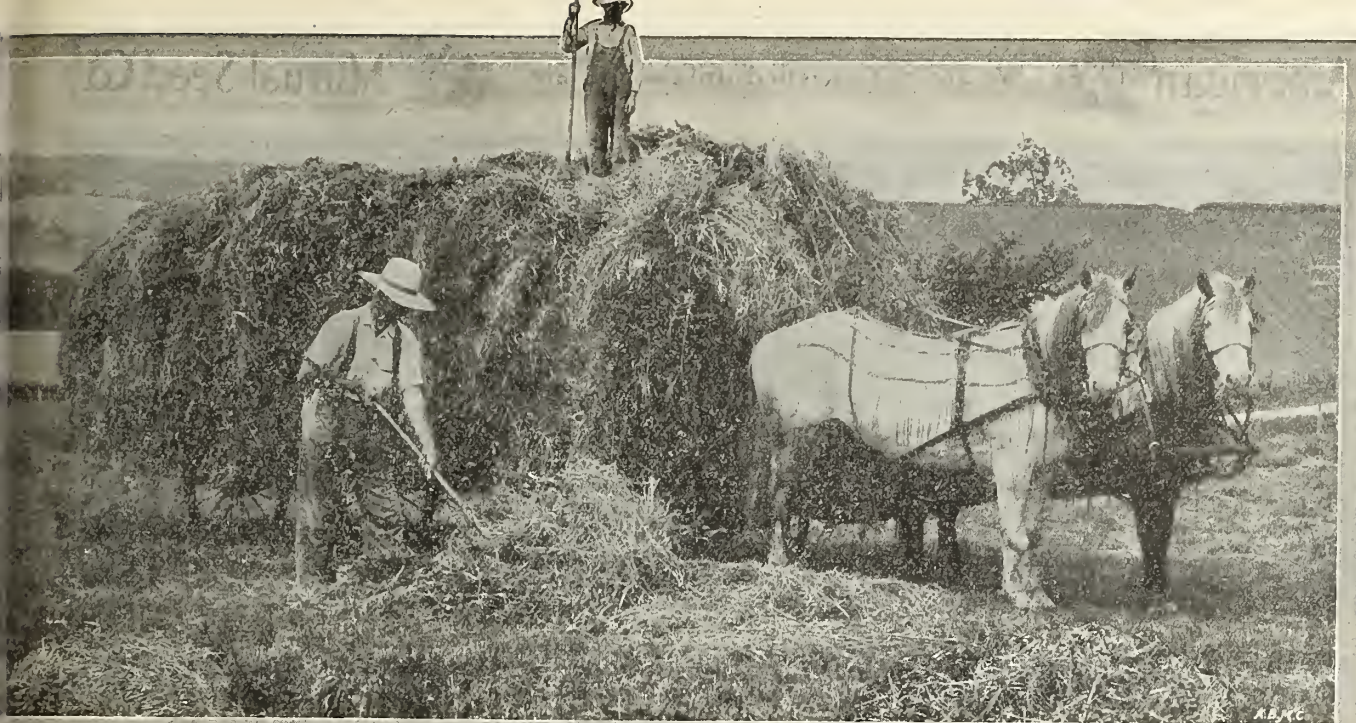
Think of it, these two great crops being sown in mixture at almost a Timothy seed price. While, if you purchase them alone you would pay from \$20.00 to \$25.00 a hundred for the Alsike, and be able to buy the Timothy but little cheaper than we can sell you the two mixed.

This mixture is a valuable addition to make your permanent pasture, for reseeding places where the wash has covered up the other grass, or in draws, sloughs, or seepy places. As the seeds are small they do not require much covering. They can be sown with but very little, if any, preparation of the soil.

Try this great pasture and meadow mixture and be convinced of its many good qualities.

Price —  $\frac{1}{2}$  bu., \$2.85; 1 bu., \$5.50. 50 lbs. to the bushel.





Ones that Always have Plenty of Hay and Pasture.

## Clover, Alsike and Timothy Mixed

In order to meet the demands of our customers for a mixture to sow for pastures and meadows, we have mixed our Alsike and Timothy and our Clover and Timothy, enabling us to offer you these seeds in mixture all ready for sowing. This seed is of the same quality as the Clover and Timothy mixed and the Alsike and Timothy mixed, and these three when sown in combination will furnish you with one of the most desirable meadow and pasture mixtures which you can secure, and at the same time save you an enormous amount of money in your seed purchase, for buying as we do in such large quantities and direct from the grower, we are enabled to furnish you more seed for the money than any one else can do.

### Advantages of Sowing Clover, Alsike and Timothy Mixed

Many advantages are to be gained by the sowing of Clover, Alsike and Timothy in mixture, first among which may be mentioned the excellent quality of hay produced. The hay resulting from the blending of these three great crops is without question the most palatable and nutritious hay which can be grown. The yield of hay grown by combining these crops exceeds that of any of them when grown alone, as the Clover not only fills the bottom of the swath but it stimulates the growth of the Timothy. A meadow or pasture resulting from the sowing of Clover, Alsike and Timothy is more permanent than Clover and Timothy alone, as Alsike, like Timothy, is a perennial, and even after the Clover has outlived its usefulness you still have a meadow or pasture that will endure for years.

Do not forget in ordering that we give you the same liberal allowance of 50 pounds to the bushel that we do in the case of our Alsike and Timothy mixture, and back it by the same guarantee that we do any other seeds that we sell, for we do not want you to keep a single lot of seed which is unsatisfactory in any way, as our biggest asset is our long list of satisfied customers who sow large quantities of our Clover and Timothy, Clover, Alsike and Timothy, and Alsike and Timothy mixed, and we believe that if you once send in a trial order we can then always consider you a member of our band.

### All Clover, Alsike and Timothy Backed by Our Absolute Guarantee

Remember, we sell you our mixed Clover, Alsike and Timothy under the same guarantee as any other seed, and if you are not perfectly satisfied with it after you have tested it in any way you like, send it back to us and we will refund your money and whatever freight you have paid. For if you are not satisfied we are not, and we do not want a single dissatisfied customer.

This seed is sold you on the basis of 50 pounds to the bushel, thereby giving you 5 pounds more to the bushel than you can secure when buying Timothy alone. So take this into consideration when buying your grass seed and see how very little more it costs you to sow this mixed seed than to sow Timothy alone. **PRICE**—See price list.

## Red Clover and Timothy Mixed

Red Clover and Timothy make an excellent combination when sown together, and to meet the demands of our customers who wish to secure Red Clover and Timothy already mixed, we have retained quite a quantity of seed as it came from the grower and as the seed was mostly all bought on a Timothy basis, we have some bargains to offer you in Timothy and Clover mixed.

### Many Advantages to be Gained by Growing Clover and Timothy Mixed

Timothy and Clover produce a better quality of hay when sown together than either produces when grown alone, and the hay is much easier handled when grown in combination. Clover hay especially is quite hard to cure when grown alone, but when grown in combination with Timothy it dries out more readily and goes into the stack or barn in better condition.

Timothy also acts as a support for Clover during the growing period. When the two are grown together, Clover and Timothy will make a much heavier crop of hay than either grown alone, as the Clover fills the bottom of the swath, leaving no waste room between the plants. The Clover being a legume gathers the nitrogen from the air, storing it in the nodules on its roots, when this most necessary plant food for the production of a Timothy crop becomes available for the Timothy. Thus we have Timothy reaching a higher state of production where grown in combination with Clover than when grown alone.

### Why Pay Two Prices for Clover and Timothy When You Can Secure it Direct from Us

We have no retail merchants to protect. We sell direct to you on a wholesale basis. Get our prices on Clover and Timothy and be convinced of the exceptional values we are offering you. While we have quite a large stock of mixed Clover and Timothy on hand, we expect a big demand for this seed this spring, and when our stock is exhausted we cannot replace it at the present prices.

Timothy and Clover when bought separate command very high prices, and the tendency is for prices to get higher as the years go by. The reason for this is that there is an ever-increasing tendency among farmers to grow these crops in combination, as shown by the great number of orders which we receive for mixed seed, leaving a smaller acreage each year which can be harvested as straight Clover or straight Timothy. These facts, we believe, fully demonstrate the fact why we can offer you mixed Clover and Timothy so much cheaper than we can Clover or Timothy in straight lots. These facts also show that the farmer is commencing to appreciate the value of this great crop when grown together and to realize the enormous saving in seed which can be made by buying this seed as it comes from the field in mixed lots, thereby not only saving a lot of money in the price of the seed, but securing seed which is ready to put in the seeder, doing away with a lot of extra trouble and time in mixing the seed at home, and then not securing as uniform a mixture as we are able to offer you already mixed. **PRICE**—See price list.





Gold Mine Hog Producer and Soil Renovator.

## Our Gold Mine Hog Producer and Soil Renovator

In order to meet the demand for a mixture that would produce a big crop of succulent feed for hogs and at the same time build up the soil in a short time, we are offering this great combination. It is, we believe, the biggest value ever offered. It will produce more pounds of pork than any other combination that can be sown. It's the greatest combination that you can grow.

### How Our Gold Mine Hog Producer Can be Secured at Such a Price

In the Sweet Clover and Alfalfa growing sections these two crops often become mixed one with the other. This prevents us from selling the seed either as Alfalfa or Clover Seed. We are able to secure this seed at greatly reduced prices, making it possible for us to offer you these two great crops in combination at about half what we could sell you either alone. Just think of it! Being able to grow these two great crops together at half the cost of either if sown alone.

### What Is Gold Mine Hog Producer and Soil Builder?

Gold Mine Hog Producer Soil Builder consists of Sweet Clover and Alfalfa in about equal proportion. The lots we buy are often largely Sweet Clover or Alfalfa, but we mix in enough of whatever they are short to make them of about equal proportions. These two crops when sown together make an ideal ration for hogs and make it possible to produce the greatest number of pounds of pork on an acre that it is possible to produce. This combination makes it possible to produce a hog without feeding very much grain. This feature alone is enough to recommend this crop to you. We do not feel that we can recommend this crop too strongly to you, and we feel that if you are not growing Alfalfa and Sweet Clover you should start growing them at once.

### This Mixture Will Make You Money

We believe that we are offering you in our Gold Mine Hog Producer and Soil Builder the biggest value for the money that you could secure. From past experience we have found that our customers who buy our grass seed mixtures are our biggest boosters. They are the ones who get the big value for the money and tell their friends about us. We make a specialty of these mixtures, and being located as we are in the greatest terminal market in the world we are able to secure some exceptional bargains for you. Other firms are not in a position to handle these mixed lots of seed, as they must depend upon the small dealer for their distribution. The average small dealer does not recognize the value of many mixed lots of seed that are offered, consequently we are able to secure these mixed lots at bargain prices. This means a big saving to the man who buys the grass seed. It means a saving of from 50 to 75 per cent on the grass seed bill. It means that you are able to sow the very best combination of legumes for building up your land, at less than half the cost. Do you wonder that we call this our Gold Mine Mixture?

### Gold Mine Mixture Valuable as a Hay Crop

This combination of Sweet Clover and Alfalfa produces a great hay crop. No better crops can be grown for hay

than Alfalfa or Sweet Clover, and we have found since we have been offering this mixture that the two when grown together are better than either when grown alone. The reason for this is that on some types of soil one has difficulty in getting a start of Alfalfa, while Sweet Clover seems to be able to adapt itself better to these adverse conditions and inoculates the soil for the Alfalfa. Another feature worthy of consideration is that the hay is of better quality. It is also claimed that where these two crops are grown together they will not bloat cattle as will the Alfalfa alone.

### No Greater Soil Builder or Inoculator Known

No other crop will succeed on a worn out, run down farm as will this mixture. It will thrive on any soil and in any climate. The Sweet Clover inoculates the soil for the Alfalfa and after both crops get started they soon make it possible to grow a bumper crop on soil that was formerly unproductive. This is the most successful combination known for putting the farm back on a paying basis, and we cannot urge upon you too hard to sow more of this seed, for we know that it will make you money.

### A Big Money Making Proposition

With hogs at sixteen to eighteen dollars per cwt, we know of no system of farming that will bring in the revenue you can secure from a few brood sows and a patch of our Gold Mine Hog Pasture Mixture. No other combination of grasses makes it possible to produce pork with as little grain as you can by sowing this mixture. We conscientiously believe that there is a place on every farm for at least a limited supply of this seed, no matter how small or how large. You cannot afford not to grow this crop. Of course, the larger the farm, the more you should sow, but no matter how small the farm is, some of this seed should be sown.

### Pork Production a Necessity at This Time

Just at this time every effort possible should be put forth to increase the amount of pork. Pork is the standard army food. It is the standard meat of the universe and can be transported better than any other meat. Fat and protein are two items that we will need in enormous quantities for the next few years, and every effort should be put forth to produce a greater number of hogs than ever before. There is only one way to do this, and that is to grow a crop that will pasture more hogs than the same acre has ever done before. We should also grow a crop that will necessitate feeding the least amount of grain. No other crop will fulfill these requirements as will our Gold Mine Mixture. Start using it at once and increase your production of pork, conserve your grain crops and increase the productivity of your farm.

**PRICES.**—Owing to the fact that we have to depend upon securing mixed lots of seeds, that have either become mixed in the field or in shipping, we are unable to quote you firm prices, but our monthly price list will make you special prices on these special lots.





Our Perennial Grasses Produce Ideal Pastures for the Breeding Herd.

## Perennial Grasses

**KENTUCKY BLUE GRASS.** With the prices of land advancing as it is at the present time, we must make our pastures better and better in order to produce the maximum amount of pork, beef and mutton on a given acre. No other grass will prove as valuable for establishing a permanent pasture as Kentucky Blue Grass. It is the king of grasses. It stands head and shoulders above them all when it comes to a permanent pasture. No stock farm can afford to be without a Blue Grass pasture. That is the source of a permanent income. It is not only the most palatable of the pasture grasses, but it is the most nutritious and is richer in protein and ether extract than any other grass. The seed we are offering you is strictly reliable in every respect. It has been carefully handled to maintain its germinating qualities, and we are making you a price below what many are asking for inferior seed stock. Send for samples.

**Extra Fancy Kentucky Blue Grass.** This grade of seed weighs from 21 to 23 pounds to the measured bushel. It is extra fancy new crop seed, and we guarantee its germination. **Price:** 5 lbs. or more, 25c per lb. Ask for prices on bushel lots or more.

**Fancy Kentucky Blue Grass.** This is an extra quality of Blue Grass Seed, and although not quite as bright and heavy as our Extra Fancy grade, it is all first-class, new crop seed, and we guarantee the germination. **Price:** 5 lbs. or more, 22c per lb. Ask for prices on larger amounts.

**ENGLISH BLUE GRASS, or Meadow Fescue.** Meadow Fescue is a perennial, attaining the height of from three to four feet, containing fine large leaves. It has been cultivated quite extensively in the Eastern States and is coming into favor in the Northern States and Canada. It is used to an advantage in blending permanent pasture and meadow mixtures, and it grows very rapidly and on wet and moist lands, hence one can keep down other grasses. It will stand lots of close pasturing by stock, and while it does not produce the tonnage per acre that Timothy does for hay, it is much more permanent and more palatable to the livestock.

**Price—5 lbs. or more, 20c per lb. See price list on bu. lots.**

**ITALIAN RYE GRASS.** This variety of Rye Grass is an annual. It is used quite extensively for seeding in pastures where clover and timothy have died out. It is grown quite extensively on the Pacific Coast and many places in the southern part of the United States. Italian Rye Grass, while an annual, re-seeds itself very rapidly, by allowing the hay to stand until quite ripe before cutting, which injures the quality of the hay very little. Sow about twenty-four pounds of seed per acre.

**Price—5 lbs. or more, 12c per lb.; 100 lbs. or more, 9½c per lb. Ask for prices on larger amounts.**

**CANADIAN BLUE GRASS.** This variety of Blue Grass closely resembles Kentucky Blue Grass in appearance. It grows much taller, however, and is more inclined to grow in tufts or bunches than to form a universal sod. It should be sown at the rate of about 30 lbs. to the acre.

**Price—5 lbs. or more, 13c per lb. See list for prices on bushel lots.**

**ENGLISH RYE GRASS.** This grass was the first grass grown under domestication. Its seed was the first to be placed upon the market as a seed of distinct variety. This grass is a very important crop in Europe and forms the base of the pasture mixture of some of the finest meadows in the land. It seems to be especially adapted to pasturing and will stand a great amount of close cropping and trampling. It will grow upon any soil in the Corn Belt, and for use in the permanent pasture mixture should be found very valuable. Sow about twenty-four pounds of seed per acre.

**Price—5 lbs. or more, 12c per lb. Ask for prices on larger amounts.**

**TALL MEADOW OAT GRASS.** This grass is particularly adapted to warm, dry climate, where Timothy will not grow. It is quite productive, stands pasturing well and remains green until quite late. It forms a very valuable mixture with Orchard Grass and Red Clover. It may be sown in the spring at the rate of two to two and a half bushels per acre, or when sown with Orchard Grass and Red Clover blended proportionately.

**Price—Postpaid, 1 lb., 35c. Your expense, freight or express, 3 lbs., 65c. See price list on bushel lots.**

**BERMUDA GRASS.** This is the greatest pasture grass of the South. It is a low growing, fine leaved perennial grass, with vigorous, creeping stems. It is never injured by the closest pasturing or frequent cuttings, and forms the foundation of all perennial pastures of the South. It is very high in feeding value and very palatable to all kinds of stock. It is distinctly a sub-tropical crop and flourishes under the hot rays of the southern sun.

**Price—75c per lb., postpaid. Your expense, 5 lbs. or more, 50c per lb.**

### GROWING THE CROP

**SOIL—**Most of the perennial grasses prefer a rich limestone soil and a rather moist cool climate.

**SEEDING AND TILLAGE—**Several methods are practiced in starting the perennial grasses. They may be sown with Clover and Timothy where these crops succeed well or sown in late summer or early fall in the corn field or on a light snow in the winter when the ground is slightly frozen and honey-combed with cracks. Most of these crops should be sown at the rate of about 14 lbs. of seed per acre but the amount of seed sown depends a great deal upon the conditions under which it is sown.

**HARVESTING—**All grasses of the Blue Grass family are primarily pasture crops and are very seldom harvested for hay. While the hay is very nutritious it is not usually palatable and is very hard to cure. The other perennial grasses are often harvested for hay and are handled much in the same way as other hay crops, but we think that by far the larger percentage of these are grown for pasture as their hardy nature enables them to withstand close grazing and makes them especially suitable for this purpose. Much of the seed is often adulterated and you should always secure your seed from reliable sources to insure its purity.





Our American Blend Permanent Pasture Mixtures Produce Beef without Corn.

## Permanent Pasture and Meadow Mixtures

### Our American Blend

To meet the demands for grass seed which will produce a meadow or pasture that will furnish the greatest amount of forage and at the same time produce a crop that will make a continuous growth throughout the season and meet various conditions of soil, climate, etc., we are offering you our special pasture mixtures which will fulfill these requirements. Some grasses are particularly adapted to wet low grounds, where there is plenty of moisture, others to dry cool climate of high altitude, and still others flourish in the dry, oppressive heat of the far South. To meet the requirements for pasture and meadow mixtures, adapted to different conditions, we are offering you our American Blend Mixtures, which are the result of many years experience in handling pastures and meadows which have proven conclusively that a mixture of grass makes a better meadow and produces a better permanent pasture than the growing of one crop exclusively.

In making up our pasture and meadow mixtures, we have taken into consideration special grasses adapted to certain soils and certain locations, and when mixed in proper proportion will not only produce the greatest tonnage of the most succulent and palatable feed per acre, but will produce a crop that will make a growth over the greatest length of time, thereby affording continuous pasturage or the greatest number of cuttings of hay.

### Composition of Our American Blend Mixtures

Nothing but first-class seed is used in the making of our American Blend Mixtures, all of which has been carefully re-cleaned and is of a high grade which should give the best returns. These mixtures are made from the following list of seeds of well known varieties: Alfalfa, Blue Grass, Timothy, Red and Mammoth Clover, Alsike, Red Top, Orchard Grass, Meadow Fescue, Tall Meadow Grass, English Rye Grass, Italian Rye Grass, Bromus Inermis and Creeping Bent Grass. Our recommendations for quantity to seed per acre in the following combination is fixed on the basis of a good fair seedling, and can be varied to suit the needs of each particular individual.

### Our American Blend Mixtures for Permanent Meadows

This mixture has been formulated with the idea in view of producing the greatest tonnage of palatable nutritious, high grade hay upon a particular kind of soil and under certain climatic conditions. These grasses have been selected which will produce the most vigorous growth in the shortest time and produce hay of superior quality. Grasses are selected which will ripen at the same time so that a uniform cutting can be secured.

By producing a blend which will meet these different requirements, we believe we are offering you one of the greatest crops which can be grown, for we do not believe that any one crop will produce the well-balanced results year after year, as will our Permanent Meadow Mixture, for the longer it stands the better it gets, and it will come through extremes of weather conditions which would prove disastrous to most crops that are grown alone.

No farm can afford to be without the permanent meadow. It is the advance guard of intensive farming and as our farms increase in value, we must grow these crops which will give us the maximum production.

	5 lbs.	25 lbs.	50 lbs.	100 lbs.
	per lb.	per lb.	per lb.	per lb.
1. For moist ground, rich soil.....	\$0.13	\$0.12	\$0.11½	\$0.11
2. For dry, high ground, strong soil.....	.13	.12	.11½	.11
3. For dry, high ground, light soil.....	.13	.12	.11½	.11
4. For marshes, swamps, overflow land..	.13	.12	.11½	.11

### Our American Blend Mixtures for Permanent Pasture

This pasture mixture has been blended with not only the idea in view of furnishing those grasses adapted particularly to soils and climate, but it has also been blended with the idea in view of producing a pasture which would improve in quality as the years go by and furnish the greatest amount of feed over the greatest length of time. These grasses will furnish pasture throughout the entire grazing season, and owing to the deep rooting and spreading character of

many of the varieties used in blending this mixture, fields will always look fresh and green during periods of drouth. They will furnish the first green bite in the spring and are the last forms of vegetation to disappear as winter approaches. We recommend the sowing of twenty-five pounds per acre.

	5 lbs.	25 lbs.	50 lbs.	100 lbs.
	per lb.	per lb.	per lb.	per lb.
1. For moist ground, rich soil.....	\$0.13	\$0.12	\$0.11½	\$0.11
2. For dry, high ground, strong soil.....	.13	.12	.11½	.11
3. For dry, high ground, light soil.....	.13	.12	.11½	.11
4. For marshes, swamps, overflow land..	.13	.12	.11½	.11

## Lawn Grass Mixtures

"The home is the greatest of all institutions." Then keep it beautiful. Nothing gives bigger returns for the money than a beautiful, velvety, well kept lawn, for there is nothing that will add to the satisfaction of the dwellers as much as will a beautiful lawn.

Sowing seed is a much more satisfactory way to secure a nice lawn than by the use of turf (sod), as the securing of turf is a very expensive proposition and oftentimes most unsatisfactory. If you are careful to secure from a firm of repute reliable seeds of low-growing, tenacious sorts, it will save you much trouble in the end, for if you sow the tall, coarse-growing sorts you will enter upon a tiresome course of eradication, for you will never have an attractive lawn until these tall growing grasses which you sowed have been eradicated.

We are in a position to offer you in our American Lawn Grass Mixture a combination of the finest evergreen grasses, mixed in such proportions that they will produce a healthy, compact beautiful sod in a very short time. Price, postpaid: 1 lb., 50c; 2 lbs., 90c; 5 lbs., \$2.00.

### American Southern Mixture

Made up of grasses especially adapted to a Southern climate, and so blended that they will produce a beautiful green lawn throughout the entire season. Price, postpaid, 1 lb., 50c; 2 lbs., 90c; 5 lbs., \$2.00.

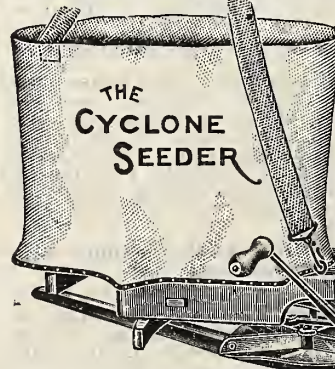
### American Terrace Mixture

Specialy adapted to keep the terrace and sloping places looking nice. The grasses in this mixture are of such a nature that they will prevent washing and hold the soil. Price, postpaid: 1 lb., 50c; 2 lbs., 90c; 5 lbs., \$2.00.

### American Shady Lawn Mixture

This mixture has been blended with the idea at all times in view of producing a lawn in those places shaded by trees or buildings to such an extent that other grasses would not grow. We have therefore made up this mixture from those grasses that grow naturally in the woods. Price, postpaid: 1 lb., 50c; 2 lbs., 90c; 5 lbs., \$2.00.

## Cyclone Seeder



A great labor and seed saving invention. The working principles are a marvel of simplicity in construction and perfect in operation; even a boy can work it. It will sow all kinds of small grain or seeds evenly and any desired amount per acre, and from 30 to 60 acres per day. Instructions with every machine. The manufacturer has had 25 years' experience in making sowers, and has a very high reputation for skill. We make our prices so low in order to give every farmer who reads our catalogue an opportunity to procure one of these most valuable seeders.

This seeder is guaranteed to do satisfactory work and you will be pleased with it.

PRICE—Parcels Post, prepaid, \$1.50.



## Northern Grown Seed Oats

### Change Your Seed

Unless you change your seed oats at least every other year you cannot expect a bumper crop. No other grain crop will pay the dividends on the money invested for good seed that the Oat crop will. All experts on this great crop agree that it is an absolute necessity to import Northern Grown Seed Oats in the great Corn Belt, and place Northern Grown Seed above all other requirements in the production of a successful Oat crop.

### Oats Sure to Be High This Year

Get lined up to raise a bumper crop of Oats this year, for never in the history of the Nation was there such a prospect for an unlimited demand for feed stuff as there is at present. The American farmer must feed the world. Think of the thousands and thousands of horses which we have shipped to the Allies alone and are now shipping to our own forces. These must be fed, and where are they going to secure feed for them unless they draw on the farmers of the United States.

### Improve This Golden Opportunity

Leave no stone unturned to get your share of this great harvest. Don't for the sake of a few paltry dollars sow seed of poor quality when you can buy seed that will produce from 20 to 40 bushels more per acre than you have been growing if you have not been sowing Northern Grown Seed. There is no crop which deteriorates so quickly as Seed Oats and the small cost of seed is a trivial matter compared to the results obtained, and with the high prices that are sure to prevail you cannot afford to not put forth every effort to secure good seed.

### Why Our Seed Oats Are the Best

We are Field Seed Specialists and put forth all of our energy and time in developing, breeding and growing these varieties which have shown by actual field tests that they are superior to any others. We make a specialty of Seed Oats, and we grow them in Canada and the Northwestern States where we can produce seed superior to that which can be produced in any other part of the world, for in no other country does the oat plant reach such a state of perfection that it does in the Northwest. Where our seed is grown it has shown by actual field tests to produce seed superior to any other territory, not only for high yielding qualities, but for their ability to resist adverse weather conditions as well.

### Our Seed Has Been Carefully Recleaned

Our cleaning machinery is of the most improved type, and not only removes all of the dirt and weed seed, but all of the light and inferior kernels as well, so that instead of having seed oats which germinate from 50 to 60 per cent you receive oats which will germinate nearly 100 per cent, and each kernel plump and strong, insuring you a stand of healthy vigorous oats, that will make you 100 per cent on what you invested in seed.

We make a specialty of the Green Mountain Favorite, Re-Generated Swedish Select, the New Alberta, Northwestern Grown Swedish Select, Kherson, Improved Silver Mine, Golden Rust Proof, White Bonanza, Improved Wisconsin, The New Banner and Sixty Day Oat. These varieties have all shown by actual field tests to be the leaders, and although we have at present a couple of new varieties under consideration which have for two years shown some very phenomenal tests, yet they have not proven by actual field tests that they will meet the exacting requirements which we demand of our Seed Oats before offering them to you.

### The Oat Crop Ranks Third in Value of Cereals

The original home of the Oat was thought to be in Central and Western Europe and Eastern Asia. Oats being adapted to the cold, moist climates of the North, became the favorite food of the hardest people in Northern Europe, and today forms the daily breakfast food of millions in the United States. The regions of the greatest oat production are Canada, Norway, Sweden and Northern Prussia.

The oat grain as a whole is found to contain a larger amount of crude fibre and ash than any other cereal, and it is of very high value as horse feed as it has certain stimulating qualities which makes it very valuable for driving horses. It is a very valuable food for young and growing stock, as it contains lots of bone and muscle building elements. The straw from the oat plant leads that of all other cereals in feeding value, and the oat plant if cut at the proper time produces a very nutritious hay.



Green Mountain Favorite, the Best of All.

Sheaf, See Height.





New Alberta—Note the Large Sized Kernels, Thin Hull, All Meat.

## The Heavy Yielding Varieties Adapted to Eastern Conditions

We conscientiously believe that we are offering the Eastern farmer in the Green Mountain Favorite and the New Alberta, the best varieties of Seed Oats that can be grown. The large stiff straw that supports the heavily laden heads of these varieties enables them to withstand adverse climatic conditions that no other varieties will withstand.

These are the vigorous growing Oats of the oat family. They are the varieties that will succeed where no other oats will grow. Our Seed stock of these varieties has been especially grown for us by the leading growers in the business and we cannot recommend it too highly to you. We feel that if you start growing these oats that it will mean the doubling of your oat crop. This is the year of all years to use the very best of seed that you can secure. Oats are sure to be high another year and you should certainly put forth every possible effort to produce every bushel possible upon each acre.

The American farmer is today practically supplying the world markets with foodstuffs and as this crop is the principal foodstuff not only for live stock but for the human race as well, there is sure to be a world wide demand the coming year for this great cereal. The seed stock we are offering you of these high yielding varieties, we believe, is the best lot of seed oats that ever came out of the Northwest, and we feel sure that they will be the means of greatly increasing your yield. This seed will make you money on your new oat crop.

## Green Mountain Favorite Oats

This oat has become a universal favorite among some of the largest growers in the Central States. It has made some phenomenal yields here in the corn belt, and we feel that you will be greatly pleased with the high quality which we are offering you in this variety. We have grown this oat very successfully upon our own farm. Therefore we are in a position to know just what this wonderful variety will do for our customers, and when we tell you that we believe we have in this variety an oat which will completely revolutionize the small grain growing industry of the Eastern States we are not basing our opinion upon the results obtained by other growers, but upon our own success.

### Make Money Introducing This Variety in Your Locality

We know of no other way by which a progressive, up-to-date farmer can make more clear money than by introducing these oats into his neighborhood. Your neighbors will come for miles to secure the seed of this variety when they once see them growing. We know of one farmer in Southern Iowa who sowed thirty acres of the Green Mountain Favorite in a field along the main traveled road which went by his farm. Before these oats headed out they were the topic of conversation of every one who passed by the field, and because of their strong, vigorous growth and dark, healthy color, there were diverse opinions expressed as to just what this crop might be. Well, when the crop commenced to head out there were sure some sensational comments made as to how much they would yield per acre. We had the pleasure of visiting this field when they were about half through harvesting this crop and we thing we can safely say that the afternoon we were there, there were thirty-five or forty men who came into the field to admire this enormous crop. When the crop was threshed the tally box on the thresher registered twenty-eight hundred bushels, or a little better than ninety-three bushels per acre, and when pulled over the scales they weighed out fifteen bushels more per hundred, making a yield by weight of one hundred and eight bushels per acre. The following spring these oats were sold for seed to the neighbors in that locality for \$1.00 per bushel.

### Green Mountain Favorite Superior to Other Varieties

The Green Mountain Favorite is a very vigorous grower, making it smut, blight and rust resistant. The grains are large and pure white in color, with a very thin hull, commanding the highest market price, as they are well suited to the manufacture of oat meal and are of high food value. The heads are long, bushy, and always heavily loaded with grain, giving a field at harvest time the appearance of being a solid mass of grain. The straw is very stiff and of fine texture, and it will stand up extremely well in all kinds of soil, and it will not wrinkle over like other varieties if allowed to stand a few days after ripening. This variety is a very persistent stooler and it is not necessary to use as much seed per acre as in the case of other varieties. The young plants are very hardy, enabling one to sow their oats quite early in the spring. The plants make a very uniform growth and the grain ripens very uniformly, and this characteristic, together with its ability to withstand adverse weather conditions at harvesting time, makes the Green Mountain Favorite a very desirable variety from a harvesting standpoint.

Our seed stock has been developed under our direct supervision, and tests from 42 to 45 lbs. to the measured bushel. Our seed is free from smut, is all Canadian grown, and we believe that we are offering you in the seed of this variety the highest quality of seed oats ever placed before the American farmer. We know that to grow this variety once will demonstrate its superiority over all other varieties and demonstrate to you that it is the most profitable oat to grow.

PRICE—1 bu., \$1.35; 5 bu., \$1.30 per bu. See price list for larger amounts.

## New Alberta

This new variety of Oats has proven to be a real wonder, for it seems especially adapted to all kinds of soil and climate in the grain growing belt of the United States. This variety is being almost universally adopted by all of the leading Oat growers in Canada and all of the Northwestern States. As it is a very heavy yielder, not liable to lodge or rust and the large plump kernels weighing from 45 to 50 pounds per bushel demands the highest price upon the markets of the Northwest. Our seed stock of this variety of seed Oats has been carefully tested and found to be a wonderful producer; it has been grown in all sections of the country, and has been found to be extremely well adapted to the corn belt.

### Start a Seed Plot

At least secure enough seed of this most wonderful variety to sow a seed plot this year, for no corn belt farmer can afford not to grow some of these most wonderful oats upon his farm. Some may think us over enthusiastic in regard to this most excellent variety, but we wish to say to you that we have seen some fields of these Oats which have proven to us that we cannot make any statement too strong regarding the big yields and fine qualities of this variety, and we conscientiously believe that when we are urging you to at least secure enough seed to produce seed stock for your entire farm another year that we are doing you a favor. We know these Oats, we know what they have done for other farmers, and we know what they will do for you, and we do not feel we can make any statement too strong in regard to them.

### Reasons Why You Should Sow the New Alberta Oats

1. They are especially adapted to corn belt conditions.
2. They will make you double the money you have been making from other varieties.
3. You will be able to sell them for seed to your neighbors for double the amount which common Oats will bring upon the market.
4. They are the earliest large variety grown.
5. They have a strong stiff straw and will stand up on any kind of land.
6. You can secure more seed value from one bushel of the large plump kernels than from any other variety.

### The Most Practical Oat to Grow

This variety is particularly well adapted to withstanding a lot of wet weather at harvest time, as the straw is of such texture that it will withstand much punishment before it will go down. Because of this most excellent characteristic this variety of Oats is rapidly gaining in popularity.

Get some of our heavy yielding pure bred seed and grow the seed stock for your farmer friends. There is no way by which a wide-awake, energetic farmer can be of more use to the community than by introducing a variety of seed Oats which will double the yield of his neighbor's crop, and there is no way by which this same farmer can make as much clear money in so short a time as by putting in these crops and selling them out to the neighbors for seed.

Remember, we handle only the best and purest grades of seed that are grown, and ship all of our seed Oats subject to your approval. If they are not just as we represent them, ship them back and we will return your money and we pay freight both ways. We absolutely know that we are putting out the best grade of seed Oats ever offered to the farmer of the Middle West, and therefore do not hesitate to recommend them in such strong terms.

PRICE—1 bu., \$1.30; 5 bu., \$1.25 per bu. See price list for larger amounts.





The Regenerated Swedish Select is a Variety You Can Always Count on Making a Heavy Yield.

## Regenerated Swedish Select Oats

The Regenerated Swedish Select is perhaps the largest white Oat that was ever introduced into the United States. It was introduced into North America by Garton Brothers of England, and is a decided improvement over the old Swedish Select. It has apparently retained all of the good qualities of the parent stock without any defects of the old. It has a very stiff straw with large sprangled heads with thin-skinned kernels and is the heaviest yielder known in America today.

All our Regenerated Swedish Select seed Oats are grown in Canada and the Northwestern States, and we do not hesitate to recommend them to you in the highest terms, for we feel satisfied they will meet your most exacting requirements in every way; and although you will find seed quoted at a very much higher price, and will not find anything superior in quality.

### Be Sure You Secure Pure Genuine Regenerated Swedish Select Seed Oats

Do not confuse our Pure Regenerated Swedish Select Seed Oats with the common Swedish Select and many others that are being represented as the pure stuff or just as good. Remember that the market is filled with substitutes because of the enormous demand of this most excellent variety; so do not be fooled into buying any of these substitutes when you can send direct to us and secure the Genuine Regenerated Pure Swedish Select seed stock, which has been carefully bred up for its heavy yielding quality, its earliness, stiffness of straw, vigorous growth, white berry, thin hull, and drouth-resisting qualities.

### Why Our Regenerated Swedish Select Seed Oats Will Make You Money

The seed stock of our Regenerated Swedish Select Oats has all been subjected to a high power blast cleaner and you will find every kernel contains a strong, vigorous germ which will, when placed in the soil, push forth a plant with the punch behind it to make a rapid growth, enabling the crop to quickly shade the ground and smoother out the weeds, guaranteeing you a big yield at harvest time.

Now, which is the cheapest, Oats that cost 50 cents or 60 cents per bushel and produce 75 per cent of a stand of weak, spindly plants, or seed oats germinating about 100 per cent, and pushing forth strong, vigorous plants capable of producing a big crop? Don't you think it will pay you to secure some of this strong seed stock?

### One Farmers' Organization Sows Nothing But Canadian Seed Stock

In one locality we have furnished the farmers with Canadian grown Swedish Select seed stock for several years, and this year they have informed us that they will have to have several cars, as the unfavorable climatic conditions the past summer made it impossible for them to harvest any of their Oat crop, as the land was so wet that they could not get the binders in the field. One of these farmers made us feel very much pleased indeed when he told us that although his Swedish Select Oats had been ripe for about three weeks they were still standing and he had hopes of saving many of them. This fact I felt demonstrated all we had ever claimed for this wonderful variety.

### Our Seed Stock this Year the Best We Have Ever Grown

Our seed stock this year we believe to be the best we have ever placed upon the market, and when we consider the fact that we have placed thousands of bushels of this seed among the farmers of the Middle West, you can appreciate just what this statement means. All our stock has been carefully re-cleaned and graded, and you will secure seed stock which will give you nearly 100 per cent germination. Write us for samples and be convinced of the really high class quality of seed Oats which we are offering you.

PRICE—1 bu., \$1.25; 5 bu., \$1.20 per bu. See price list for larger amounts.

## Northwestern Grown Swedish Select Seed Oats

To meet the demands of our customers for a grade of Swedish Select Oats of excellent quality, who do not feel that they can afford to purchase the imported seed for their entire acreage, we are offering seed of this most excellent variety which has been grown in the Northwestern States. These Oats are of the finest quality and no farmer can afford not to purchase this seed, and while we do not claim that they will produce the quality or yield that our Regenerated Swedish Select will, they have given such universal satisfaction that we do not hesitate to recommend them to you in the highest terms. Send for samples and get our prices on this great Oat. The Swedish Select has set the pace; others have followed. Grow the best. Order seed today. There cannot help but be a shortage with all of the corn belt clamoring for Seed Oats.

PRICE—1 bu., \$1.20 per bu.; 5 bu., \$1.15 per bu. See price list for larger amounts.

## Improved Silver Mine

This is today one of the most popular varieties and very widely grown in the Central States. This variety usually commands a premium on the market because of its clear white color, which makes it so desirable for the manufacture of rolled oats. This Oat has made quite a reputation as a heavy and reliable yielder and many farmers who have grown this variety for years would grow no other. It is beyond a doubt the best Oats for many localities, and we feel sure that you could make no mistake in sowing this variety, for the straw is strong and stiff enough to stand up well and not lodge readily, and the large sprangle top heads well filled with large, soft hulled kernels make it a very profitable crop to grow. The grain is much relished by horses.

PRICE—1 bu., \$1.20 per bu.; 5 bu., \$1.15 per bu. See price list for larger amounts.

## Golden Rust Proof Seed Oats

This variety has made a phenomenal record because of its rust resisting qualities and the wonderful yields produced under adverse conditions, while other varieties in adjacent fields were a total loss.

This rust proof characteristic is a big asset in this particular climate where we have the damp, foggy nights and the sun comes out so hot during the early morning hours, and where local showers, followed by warm sunshine, are prevalent. We do not believe you can beat our Northern Grown Golden Rust Proof Oats.

If your Oat crop was a failure last year, try the Golden Rust Proof; it has given most excellent satisfaction in those localities where all other varieties have failed, and we can most heartily recommend it to any of our farmer friends, who have been harvesting nothing but chaff, and we know that to try this seed is to be convinced of the excellent qualities possessed by this variety and not found in any other Oat.

This variety is the solution of your Oat troubles. Send for a sample of these Northern Grown Golden Rust Proof Oats and see if you do not become as enthusiastic as we over these big yellow kernels, capable of producing an Oat plant with rust resisting qualities.

PRICE—Per bu., \$1.50; 5 bu., \$1.25 per bu. See price list for larger amounts.

## SPECIAL PRICES ON CLUB ORDERS

Farmers, get together and buy your seed oats in car lots. You can save more than enough to pay the freight. There isn't a community in the Corn Belt but what would be greatly benefited by changing their seed Oats. Get a car of our Pure Northern Grown Seed Oats and double the yield of your community. Read our great Profit Sharing plan and see how you can make a good thing for yourself. Increase the oat crop for your neighbors and save them money. Write us for samples and prices on a car of Pure Northern Grown Seed Oats.





The Kherson is the Favorite Early Oat and Never Disappoints.

## Iowa 103

### The New Sensational Early Oat

This variety of early oats has probably caused more of a sensation among cereal feeders than any other oat. It was bred up by Prof. L. C. Burnett of the Iowa Station and is undoubtedly the highest yielding strain of early oats ever introduced.

### This Variety Especially Adapted to the Middle West

These oats have a very short straw and while they do not reach sufficient height on thin hillsides they are especially suitable for growing on the heavy land of the Mississippi Valley. The heads are unusually heavy and a crop of this variety gives one the impression of being a solid mass of grain. These oats lodge to a certain extent but we do not believe there is any other variety that will outyield them in this section. Another feature about them that is to be recommended is that they are very early and because of their early maturing qualities they are mature before the hot dry weather that is so detrimental to the oat crop in this section.

### Secure Some of this Seed

You should not fail to secure some of these wonderful high yielding oats. These are the oats that will make you money on your corn belt farm. They will double your yield. We do not believe there is any way that a wide awake energetic farmer can be of more service to the community than by introducing this variety of seed oats. There is no way that this same farmer can make as much clear money in so short a time as by putting in a field of these oats and selling them out to his neighbors for seed. We have an excellent lot of these oats. They have all been carefully re-cleaned and tested for germination and we feel sure that they will please you in every way.

PRICE—1 bu., \$1.25; 5 bu., \$1.20. See price list for larger amounts.

## Sixty Day Selected

The Sixty Day Oats, on account of its extreme earliness, has proven to be one of the most popular varieties ever introduced into the southern half of the corn belt. Because of the extreme earliness of this Oat it is enabled to make a crop in those sections where later varieties would be a failure, for it succeeds in making its growth and ripening before the extreme hot weather and hot winds, which often proves so disastrous to some of the later varieties. The Sixty Day is certainly a very valuable variety. It is giving satisfactory results over a wide range of territory. It is at least a week ahead of any other variety. The straw being short and not subject to lodging makes it one of the best varieties known to use as a nurse crop.

The small, yellow kernels are very rich in feeding value, and the straw is the most palatable of Oat straws. Another advantage in growing Sixty Day Oats is that you are often able to get your crop on the market ten days or so earlier than you otherwise would and often secure the advantage of the market. Our seed is Northern grown and we feel that it will please you in every way. Try these wonderful Oats and increase your yield.

PRICE—1 bu., \$1.00; 5 bu., 95c. See price list for larger amounts.

## Early Champion

This is an old well established variety. It is one of the very earliest oats known and can always be relied upon to give a fair yield of grain. These oats grow a short very stiff straw, always stand up well and ripen very early. Because of these characteristics they have gained much fame as a nurse crop for the grasses as they do not smother the young grass by lodging.

Another feature that is much in their favor as a nurse crop is the fact that they can be harvested very early. In fact, this variety has sometimes been called a Fourth of July oats because they are always ready for harvesting at that time. This variety has gained much fame throughout the Corn belt on account of their being such consistent yielders, as while they are not as heavy a yielding variety as some, they can always be depended upon to make a very fair crop and if you contemplate sowing any grass seed with your oats we cannot recommend this variety too highly to you.

PRICE—1 bu., \$1.00; 5 bu., 95c. See price list for larger amounts.

## Iowa 105

This variety is another one of the master achievements of that famous plant breeder and farm crop expert, Prof. L. C. Burnett of the Iowa Experiment Station. This variety is without a doubt the heaviest yielding variety of early Oats known.

The Iowa 105 like the Iowa 103, as the name implies, was bred up at the Iowa Experiment Station and is especially adapted to corn belt conditions. The great advantage that this variety has over later varieties is the fact that they usually escape the hot weather at the time of filling and produce a heavier yield than if they matured later. The grain of this variety is white and plump. It has a thin hull and is certainly an excellent variety to grow under average corn belt conditions.

We have never had a single complaint on this variety and our customers are growing thousands of acres of these Oats. If you are not growing them you should certainly start this year as they will make you more money than any early Oat that you could grow.

PRICE—1 bu., \$1.25; 5 bu., \$1.20 per bu.

## Kherson Oats

### The Great Little Oat of the Corn Belt.

The Kherson is a small yellow Oat, with a very thin hull, being practically all meat, and has short, stiff straw, which is very high in feeding value. This Oat since its introduction a few years ago has proven a big asset to the farmers of the corn belt, for its early maturing qualities have placed it in the shock before the hot, dry weather could damage it.

The Oats are very heavy and will surprise any one by their enormous yields, and we feel sure that this variety will add from 20 to 40 bushels of Oats to your yield this year.

The Iowa Agricultural College have in a five-year test placed this Oat above all other varieties of the well known sorts from a yield-per-acre standpoint, and because of their short, stiff straw they are much less likely to lodge, and we have never known a failure where this variety was sown.

PRICE—1 bu., \$1.25; 5 bu., \$1.20 per bu. See price list for larger amounts.

### GROWING THE CROP

**SOIL**—Oats have the ability to adapt themselves to poor soil better than most of the other cereals, but they are very particular about moisture requirements, and should be placed on relatively moist soils.

**PREPARATION OF SEED BED**—Oats grow quite well on comparatively compact soils, and it is not necessary to prepare the seed bed as deep as for some of the other cereals.

**SEED AND SEEDING**—Too much emphasis cannot be placed on the importance of securing good seed stock. The Ontario Agricultural College in the seven years' experiment shows that larger seed produced 15 per cent larger yields than medium size seed, and 31 per cent larger yields than small seed. Many other stations have agreed that to secure good heavy seed is of the most importance. Oats should be sown to a uniform depth of not to exceed one inch, and closely allied with uniformity of depth and distribution is the thickness of seeding, and through the numerous experiments that have been carried on to determine what rate of seeding was the most profitable, it has been shown that on an average from three to four bushels of the larger varieties of Oats produce the heaviest and most profitable yields. Oats may be sown broadcast, or with a drill, with about equally good results, some advantage being claimed for the drill in a more even covering of the seed, thus insuring a higher percentage of germination. All seed oats should be treated for smut, for no other enemy of the oat plant has caused such enormous losses as has smut.

**HARVESTING**—Oats are usually harvested while in the hard dough stage, as when cut at that time they do not shatter as badly as when cut later, and if cut earlier than this the shrinkage of the grain is so great as to cause serious loss. The quality of the straw is improved by being harvested before the grain is in the hard dough stage, but the shrinkage in the quantity of grain more than offsets any advantages to be gained. The Oats may be either threshed from the shock or stacked and allowed to go through the sweating process, which materially improves the quality of the grain.





Our Improved Seed Stock Will Greatly Increase Your Yields.

## Barley

Barley ranks fourth in the list of important cereals in the United States. As the acreage is increasing each year it shows that it is gaining in popularity, and the farmers are becoming convinced of its high yielding and feeding qualities.

Barley has proven to be a much more profitable crop throughout the Middle West than has either Oats or Spring Wheat and our **Improved Barley**, are going to be the means of making it possible to produce greater yields of high quality food stuff per acre than can be grown by sowing other cereals. Barley by its chemical analysis, shows that it is equal bushel for bushel in feeding value to corn, and as it commands a higher price and produces more bushels per acre it makes a more desirable crop.

The following will illustrate the value of careful methods in seed selection; and I think will convince you of the importance of sowing nothing but seed which has been carefully re-cleaned and graded. The Ontario Station in an average of six years' experiments obtained 20 per cent larger yields when nothing but plump seed was used than when the crop was grown from inferior seed. Think of it, 20 per cent, one-fifth more grain grown from using plump seed than an inferior grade. The yield is invariably heavy when a good quality of seed is sown. We wish to impress upon you the absolute necessity of securing good seed to grow a successful crop of Barley.

Barley is more certain to produce a crop than are any of the other cereals, for it will stand up better, does not lodge readily and will stand more hot, dry weather or wet, foggy days than will any of the other grain crops; in fact it is more certain to produce a crop under any conditions than any grain which you can grow.

### GROWING THE CROP

**SOIL**—Barley prefers a well drained and light, rich soil.

**PREPARATION OF THE SEED BED**—Barley should be grown under as uniform conditions as possible, therefore good clean ground, well disked and pulverized in the spring furnishes a desirable seed bed.

**SEEDING**—Barley is usually seeded shortly after the Oats are put in, but as Barley will flourish in warm, dry weather a delay in seeding is not as detrimental as in the case of Oats or Spring Wheat, and Barley fits very nicely into the cropping system because of this characteristic, for oftentimes there are seasons when you can not sow Oats because it is too late before the ground can be put in shape; but in the case of Barley which does not need to be seeded so early, the ground can be prepared. Wide variations in the rate of seeding seem to give as equally good results, but two bushels is the amount ordinarily sown, as there are somewhat less number of seeds in a bushel of Barley than in a bushel of Wheat or Oats, and as thin seeding is conducive to irregular ripening and as Barley stools less than Oats, we would not advocate sowing any less than two bushels per acre, and would prefer two and one-half under average corn belt conditions.

**HARVESTING**—Barley is usually harvested somewhat earlier than either Wheat or Oats. It should, however, be allowed to remain standing until thoroughly ripe, especially if it is to be sold to breweries, for if the grain is allowed to thoroughly ripen before harvesting, a more mealy endosperm will be obtained, while if cut before it is ripe a harder and flintier grain is obtained.

**MARKETING**—Barley is sold upon the market either as a feed or brewing Barley. Its requirements for a brewing Barley are very exacting. There is very little of this grade of barley produced, as any discoloration or mustiness depreciates the value of brewing Barley, but when one secures a good grade of Barley it usually brings from 15 to 20 cents per bushel over that of the common feeding Barley.

### Varieties SUCCESS BEARDLESS BARLEY

This is a very early variety, with a short straw, and is very much in demand as a nurse crop. This variety of Barley is not so heavy a yielder as some of the more improved varieties, but because of its excellent nurse crop qualifications it is still very much in demand. Our seed has all been carefully re-cleaned and graded, and we are in a position to furnish you an excellent quality of Success Beardless Barley, if you desire to sow it, for our seed stock has all come from a reliable source, and is first-class.

**PRICE**—Per bu., \$2.85. See our green list for prices on larger amounts. Bags are free.



### CHAMPION BEARDLESS BARLEY

This Barley resembles the Success, but it matures earlier and is a very much heavier yielder. The straw is stiff, which insures it standing up well even under adverse conditions. It grows very rapidly and time of ripening can be governed to a great extent by the time of seeding. Some have reported sowing it at a time Spring Wheat was sown and harvesting the crop the latter part of June. Under such conditions as this, Champion Beardless Barley makes a wonderful crop to raise as the great quantity of the very best of feed can be obtained at a time when the prices are highest.

We have a fine lot of seed of this superior high yielding variety, and as it has been carefully graded and re-cleaned we can most heartily recommend it to you. Make up your mind to grow some of this great crop this year, send to us for samples and secure our extraordinary prices.

**PRICE**—Per bu., \$2.85. See green list for prices on larger amounts.

### OUR GREAT BLUE BALD BARLEY

The extraordinary feeding qualities of this great Barley cannot be fully appreciated only by those stock raisers who have given it a trial on their own farms. There is no Barley that has ever been produced that will add quicker, more economical gains on animals than will this great variety of feeding Barley. This barley, because of its high feeding value should be fed much lighter than other varieties of Barley, for because of the absence of the hull, which is removed in threshing, it most generally weighs better than 60 pounds to the bushel, and is all feed. Many of the most experienced feeders follow the practice of mixing this Barley with Oats and grinding the two together. In fact this process is followed almost exclusively throughout the Northwest where this Barley is used for feeding purposes by the very best stockmen throughout that section.

Our seed has been especially grown for us by the very best growers in the business, have been especially bred up for its high yielding qualities and feeding qualifications. If you want a barley which will be one of the most valuable additions to your feeding ration and one with a stiff straw that will stand up straight and not lodge, do not fail to sow some of the great Blue Bald Barley.

**PRICE**—\$3.00 per bu. See green list for prices on larger amounts.

### ODERBRUCKER BARLEY

This variety of Barley was developed by Professor Moore, of the Wisconsin Experimental Station. It was carefully bred up on the Wisconsin Station Farm for ten years, and Professor Moore regards it as the most satisfactory Barley, all kinds considered, that was ever produced on the station farm. It has a very stiff straw and is quite drouth resistant, showing a superiority in this respect over any other variety tested at the station farm. It is claimed this Barley contains nearly double the amount of protein found in any other variety of Barley. Because of its high protein contents it is considered one of the best varieties for both feeding and malting purposes. Our seed has been carefully grown and selected from good seed stock, and carefully re-cleaned and graded.

**PRICE**—\$2.60 per bu. See green list for prices on larger amounts.

### MANSHURY'S BARLEY

This variety of Barley was introduced from Manshury, China. It is a six rowed variety. This is the Old Reliable variety. It has been the National standby for many years, and still heads the list in productiveness according to some of the best agricultural authorities on Barley growing in the United States. Manshury Barley is better adapted for feeding purposes than for malting, although it is still preferred by some as a malting Barley. This variety of Barley is probably more extensively grown than any other variety, and has a great number of phenomenal yields to its credit. The strain of Manshury which we are offering is an improved strain, has a plumper berry and will yield from 10 to 15 bushels more per acre than the old variety. Our seed stock is plump, heavy and bright; it has been carefully re-cleaned and graded, and we feel confident that it will please you.

**PRICE**—Per bu., \$2.65. See green list for prices on larger amounts.





Notice the Height of This Crop, Which Seldom Fails to Make a Heavy Yield.

## Emmer or Speltz

Emmer is a Russian Cereal closely resembling Barley, and although of comparatively recent introduction into the United States it has met with almost universal favor, and although especially adapted to the semi-arid districts, it is proving equally as popular under Corn-Belt conditions. The Winter Emmer is grown quite extensively in Kansas, Nebraska, Oklahoma, Colorado, while the Spring or White Emmer is a universal favorite in the Dakotas. Emmer is a hardier plant than wheat and will give better results on poor soil and in a cold dry climate than any other cereal. Its straw is shorter and stiffer than that of wheat and it stands up much better and is not as liable to rust. It matures a crop with the least amount of moisture of any other of the cereals and the straw ranks next to oat straw in feeding value. In many sections in the West it can be grown where wheat, oats and barley would be a failure, and it is a crop which is proving of the utmost importance to the dry land farm throughout the Western States. Reports from those who have grown Emmer under Corn-Belt conditions speak very flattering of its wonderful yielding power and high food value.

### Why Emmer Should Be Grown on Every Farm

1. It will produce a heavier yield of grain per acre than any other cereal.
2. It is readily eaten by all kinds of stock, and it has been shown that all kinds of stock thrive exceedingly well upon it.
3. It will grow on land which would not produce a good crop of other cereals.
4. It will stand unfavorable conditions much more readily than any other crops.
5. It is especially adapted to a wide range of conditions.
6. It matures early and neither rusts, blights or lodges.
7. It will produce an excellent quality of hay if cut at the proper time. There are many other reasons why you should grow this wonderful crop, and we feel that any one of them would warrant your making a trial of this greatest and most valuable of all the cereals.

### Emmer a Heavy Yields

Emmer will unquestionably yield a greater amount of grain per acre under the average dry farming conditions than any other crop, and when you consider that it is equal in feed and value to either corn or barley, you can readily understand why we are so enthusiastic over having our customers grow some of this most wonderful of all cereals, for there is no other crop which can be grown under dry land conditions that will bring in the revenue that a crop of Emmer will. It not only brings a good price upon the market, but when ground produces one of the most appetizing and nutritious feed stuffs for the stock farm which can be grown, and is eaten by horses, cattle, sheep and poultry with equally good results.

### Speltz the Big Money Crop Easy to Grow

Speltz is the easiest of grain crops to grow. It will thrive on any soil, and in any climate, where any other crop will grow. It needs no special preparation of the seed bed, as it can be sown on land prepared the same as you would for barley, wheat or oats. The straw is shorter and stiffer than wheat, and it does not rust or lodge. It can be sown much earlier than any of the other crops, for frost will not injure it. It should be sown at the rate of 2 to 2½ bushels per acre, and may be either broadcast or sown in drills. It is harvested when in the hard dough stage, the same as other grain, and threshed the same as wheat, except you use fewer concaves and leave the outside hull on.

### Speltz the Cheapest and Best of Feeds

Cut down the feed bills. Grow the crop that produces heavy yields of the most nutritious feed. Speltz is especially to be recommended for milk cows and swine, for when mixed with bran or shorts it produces a food which cannot be excelled. Speltz is very rich in protein, the most valuable of all food stuff, and no live stock farmer can afford to be without it.

### If You Are Not Growing Speltz Be Sure and Grow It This Year

You cannot afford to not grow this great crop. It produces the cheapest feed known, and to give it a trial is to become convinced of the wonderful possibilities of this great cereal. The enormous yield of rich, nutritious grain, and the heavy crop of straw, which is nearly equal to hay, we know will please you. No matter in what section of the country you are located, you can grow this crop with good results, for it can be grown in every state in the Union. Don't delay ordering, but make sure that you will have plenty of feed and sow Speltz.

### Varieties

**White or Spring Emmer or Speltz** is very similar to Barley in appearance and growth, and it is especially adapted to the semi-arid districts of the Northwest, and can be relied upon to produce a fair crop even under the most adverse conditions. It produces heavy yields of grain, and straw which is equal in value to oat straw. Its extreme hardness and drought resisting qualities, together with yielding qualities that surpass any other cereal makes it a grain of the utmost importance to the farmers in the North and Northwest.

Our seed stock has been bred up from the most hardy, high yielding strains, and has been carefully re-cleaned and graded and we believe that we are in a position to furnish you with the best that can be procured, and we know that it will prove to be the cheapest and best feed which you have ever grown upon your farm.

**Price—\$1.85 per bu.: 5 bu., \$1.75 per bu.**

**Winter or Black Emmer.**—Winter Emmer, although a comparatively new crop, has in recent years increased in cultivation very rapidly as the farmers have begun to realize the great importance of this hardiest of all cereals. Winter Emmer produces where no other cereals thrive, and is without doubt the most valuable acquisition ever made to the possible list of cereals adapted to dry farming conditions, for it thrives in the hot dry summers of the semi-arid districts and gives most excellent yields.

See green list for prices.

### GROWING THE CROP

**SOIL.**—It will grow on any soil or in any climate where any other grain crop will grow.

**PREPARATION OF THE SEED BED.**—It can be sown on ground prepared the same as that upon which you would plant barley, wheat or oats. It is sown broadcast or by the use of a press drill.

**SEEDING.**—Emmer is usually sown at the rate of two to two and one-half bushels per acre. The frost will not hurt Spring Emmer or Speltz after it is sown. It may be put in much earlier than other cereals. Black or Winter Emmer should be sown about the same time as Fall Wheat.

**HARVESTING.**—Cut the grain when it is a little past the milk stage, when it will make a splendid grain and lots of straw.





Our New Marquis Wheat Not Only Makes the Largest Yields but the Finest Bread.

## Spring Wheat

Wheat comprises one-fourth of the acreage yield and value of all the cereals in the world, and when you consider over three-fourths of the wheat producing area in the world is engaged in one of the greatest wars in the history of the world, we think you will agree with us that nothing should be left undone to produce every bushel of wheat possible upon the farms of the United States the coming year.

### The American Farmer Must Feed the World

Crops have been destroyed by invading armies, fields which were formerly in the highest state of productivity are barren wastes, and the production from the greatest wheat producing sections of the world is at a standstill. Now is the opportune time to make a fortune in raising wheat. Get in line and get your share of the returns from this greatest of all cash crops, for this is undoubtedly the most opportune time for engaging in the wheat growing industry which we have ever experienced. We feel that every American farmer should place himself in a position to receive his share of the revenue from the high prices which are sure to come.

## VARIETIES OF SPRING WHEAT

### New Marquis

New Marquis is from a week to ten days earlier than any other variety. It was originated by Dr. Charles and William Saunders, of the Central Experiment Station, Ottawa, Canada, and is the result of crossing the Red Fife and Hard Red Calcutta, a native of India. By this cross breeding a variety has been produced having the remarkable characteristics of the earliness of Calcutta and the yielding and drouth resisting qualifications of the Red Fife. It has a medium short straw, which is very heavy, rendering it less liable to lodge than the other varieties. The kernel is very hard, dark and plump. In fact, it is the most beautiful wheat we have ever seen. When you consider that this was the wheat which won the Championship Prize at the New York Grain Exposition, the \$3,000 prize at the International Dry Farming Congress held at Lethbridge, Alberta, and again winning in open competition the sweepstake prize at the Dry Farming Congress, Tulsa, Oklahoma, you can commence to appreciate what a really great wheat it is.

New Marquis Wheat is the most productive variety which has ever been known, and no other variety of wheat combines earliness, productivity and quality to such a degree as does the New Marquis. Because of these most excellent qualities you cannot afford to sow any other variety of Spring wheat, if it is at all possible to secure the New Marquis.

We have an exceptionally fine lot of seed stock which has been grown for us by the best breeders and growers in the Northwest, and we do not hesitate to recommend our seed or place it in competition with any other seed stock which is being offered. It will prove the biggest money making proposition you have ever tried, and its superiority and quality and high yielding qualifications place it above all other varieties of seed Wheat.

You cannot afford to grow the common varieties, as there is very little left after paying expenses and harvesting and marketing the crop; when you can secure the seed for growing this remarkable variety for very little

more money than inferior seed would cost you, you should not fail to take advantage of the opportunity to secure the seed stock for growing this most wonderful variety.

Write us for samples of this great Wheat.

See green list for prices.

## VARIETIES OF WINTER WHEAT

### Our Improved Turkey Red

Many varieties have been introduced, many of which have a great deal of merit, and when grown under certain conditions of soil and climate some of them will outyield the Turkey Red, but this is the great Wheat that will stand the hardships. It has come through winters when thermometers registered 30 to 40 degrees below zero and at threshing time produce a good yield of high quality grain. Because of this extreme hardiness it is known as the Reliable Minnesota throughout the Northwest. This variety of Wheat is particularly adapted to conditions throughout the Southwestern and Middle Western States, and its strong growth and heavy, vigorous roots make it possible for it to adapt itself to a great variety of soils.

Turkey Red is not susceptible to disease, and numerous tests which have been made to ascertain which varieties were the highest yielders shows that Turkey Red has stood up well toward the top of the list. We believe that it will pay all those who are intending to grow winter wheat this year to get our fall catalogue and prices on pure bred Wheat seed, for we have put out some excellent seed stock to some of the best growers and breeders in the country, and we should, if it is anything like a seasonable year, be able to offer you for your fall seeding, the best lot of Fall Wheat seed ever produced.

### Kharkov

This variety has recently been imported from Russia and is one of the hardiest and heaviest yielding varieties known. It is a very heavy stooler and produces heavy straw which stands up well on rich land. Because of this characteristic, it is rapidly gaining in popularity. Our seed stock for this variety has just recently been imported, and you will find it of the very finest quality. It has all been carefully recleaned and graded, and is first-class in every respect.

### Red Cross Wheat

Red Cross Wheat is a hybridized variety, originated by hand crossing of the Turkish Red Wheat on the Scotch Fife, thereby producing a variety with the hardiness and prolific qualities of the Turkish Red and having the beardless head of the Scotch Fife.

### New Fultz

This is a very hardy variety of beardless Wheat, and is very extensively grown throughout Ohio, Indiana, Kentucky, Tennessee, Southern Illinois, Arkansas and Texas, and it has given universal satisfaction among those who desire a soft, beardless Wheat.

## RYE

**SPRING RYE**—The value of this most important crop is becoming more apparent every year. It will thrive on poor land where no other cereal will grow. It produces an abundance of fall, winter and spring pasture besides the grain crop which can be secured from it. Rye is used quite extensively as a green manure, and when plowed under in this condition, adds an enormous quantity of fertility to the land.

Spring Rye does not grow quite as much straw as Winter Rye, but usually yields as well and grain is of excellent quality. We advise ordering early as our supply of the seed is limited and we may not be able to obtain more. The price is variable, so kindly refer to Green List. Sow the same as Spring Wheat.

**AMBER WINTER RYE** is very productive. Its special adaptation to poor soil where it will undergo all kinds of hardships makes it a very useful and profitable crop.

**ROSEN WINTER RYE**—This variety of Rye has been especially bred up for its high yielding and milling qualities, and it is proving quite an important crop in many sections of the country. Should you be in the market for a variety of first-class Rye, we do not hesitate to recommend this seed to you.



## Seed Corn

The seed corn situation this year is certainly a serious one and you cannot exert too much caution with reference to the corn you plant. Many seed firms are not advertising seed corn this year, saying that the risk is too great, that they will not get enough out of it to pay them. Let me tell you friends that we are going to continue to handle seed corn year after year and take the risk. Many fields that we had out on contract are a sad disappointment and we will not get a bushel of seed. Others have turned out fairly well and I believe that we will be able to take care of you in good shape on your seed corn. We are going to do the very best we can for you, and personally I feel that there is seed corn enough for us all. The main thing is to get distribution. If you have good corn, especially of the earlier varieties, pass it around. This is one of those years when we must all co-operate in order to insure a big crop of corn next year.

We are making careful tests of every lot of corn we ship out; and every lot that leaves our warehouse must be of good germination. In order to make sure that nothing has happened to this corn after it has left our hands, test it again and if it doesn't show up as good as you think it should, let us know. Every bushel must be right or as nearly so as is possible. Don't put off ordering corn until late in the season but place your order early. The situation is really serious.

### The Illinois Special

This variety of corn has been grown throughout central Illinois for a number of years and has proven one of the most popular varieties ever introduced. It is not an early corn, but only a medium maturing variety, maturing in from 110 to 115 days. This is the big heavy crop kind, the one that will break down the corn crib and choke up the elevator. The corn that has placed Illinois on the map as the greatest agricultural state in the Union. No one who has never seen this corn can appreciate its wonderful qualities, and we do not hesitate to recommend it as the best and heaviest yielding corn that has ever been introduced. It will swell your profits and increase your bank account; this is the kind of corn that pays off the mortgage on the old home; it's a regular mortgage lifter.

### It Is The Stockman's Favorite

There is no better feeding corn grown than the Illinois Special. A chemical analysis of this variety shows that it contains a high percentage of oil and carbohydrates, the most necessary constituents in making up a fattening ration. These are the elements which tell you what a bushel of corn is worth when it comes to putting a gain on a bunch of cattle. This is the kind of corn which makes you smile when the cashier hands you the account of sales on a bunch of cattle that you thought cost too much money when you put them in the feed lot. It's the kind of corn that makes a man money on these high priced feeders, for the richer your corn in oil and carbohydrates the more gain you will get from each bushel of that corn you feed. This is the variety that the most successful feeders agree is the "best cattle corn." Try a few bushels of this great feeders' favorite and you will be convinced of the exceptional feeding qualities of this wonderful variety.

### Description

This variety is not a show corn, it is too large for a show corn. But it's the corn that grows the bushels. The ears range from 10 to 12 inches in length, and from 7½ to 8½ inches in circumference, with from 16 to 18 rows. They are cylindrical in shape with well filled butts and tips and weigh from 14 to 18 ounces. The cob is rather large, and is well covered with deep, broad kernels of a rather dark yellow color, shading off in some cases to a reddish cast. The germ is exceedingly large, which makes it such a strong vigorous grower, withstanding wet and cold weather to a considerable degree.

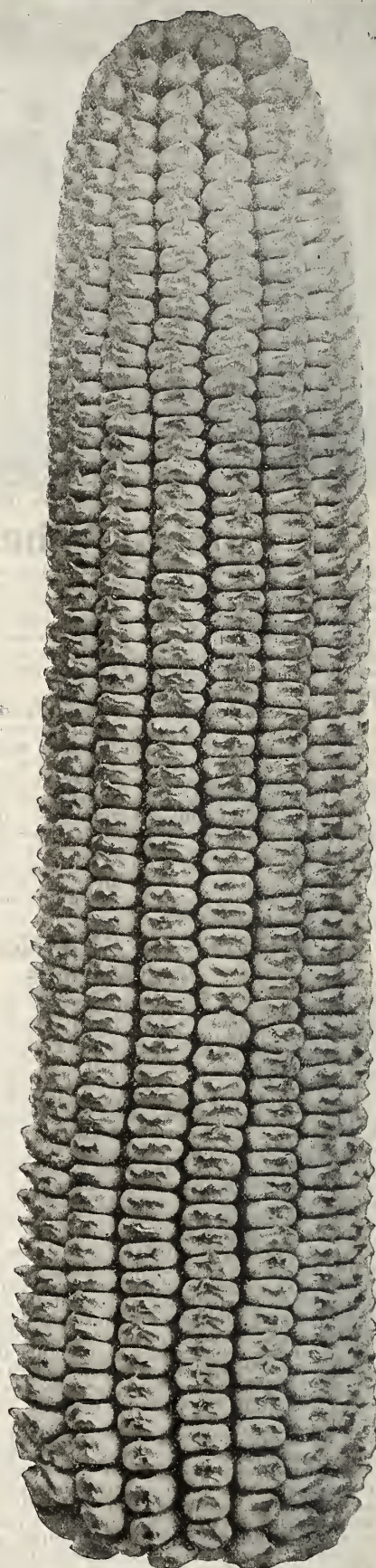
### Try This Variety and Be Convinced of Its Wonderful Qualities

If you are a feeder you will find that this Corn will give you most excellent results, especially in feeding cattle, for it is not a hard, flinty variety, but the ears can be easily masticated by the cattle. As it has been found by numerous experiments that a fresh bunch of cattle can be put on full feed more successfully by starting them on ear corn than by any other method, the adaptability of this corn for this purpose should not be overlooked in making your selections to plant another year. The Illinois Special not only produces the results for the feeder because of its high content of the fat building constituents, but it is the variety which will produce the results for the grain farmer as no other variety will under the same conditions produce the bushels that can be grown with the Illinois Special. It's the best all-purpose variety ever produced. While this variety, owing to its vigor and vitality, does well on poor, thin soil, like all other varieties does its best on strong, rich corn land, and no matter what your conditions may be we do not hesitate to recommend this corn to you, for we know it always lives up to our expectations.

### The Seed of This Variety Has Been Carefully Selected

The seed we are offering you of this variety has been carefully selected, graded and stored, and we know that it will please you. This is one of the best varieties of corn we know of and if you are not growing this corn we would urge you to do so at once.

Price—See green list for prices.



Illinois Special.



## Reid's Yellow Dent

The old stand by of the Corn Belt, the variety that has won more grand championship prizes than any of the other varieties at the leading corn shows throughout the United States. The ears are of medium size, are very uniform and of a bright yellow color. It is a deepkerneled, small cob corn, giving you a very high shelling percentage. It matures in from 115 to 120 days and is especially suited to the central and southern half of the corn belt.

The strain of Reid's Yellow Dent which we are offering has been especially bred up for its high yielding qualities and for good strong land we do not believe you will find a variety of corn which will produce the bushels for you that our Reid's Yellow Dent will. The members of our firm, I think we can say without fear of contradiction, have done as much if not more actual breeding work with this variety than any other seedsmen in the United States and we feel that in offering you seed from these high yielding parent ears that we are offering you a grade of seed corn you cannot secure elsewhere.

**Description.**—Our type of Reid's Yellow Dent is somewhat rougher than that of most breeders, but we believe we have a strain of Reid's Corn which will dry out quicker than the old smooth type and one that is much better feeding corn than the old type, as the kernels are not as flinty. The ears range from 9 to 11 inches in length, are cylindrical in shape, with well filled butts and tips and straight rows. The kernels are very deep and of a light golden yellow color. Don't fail to secure some of this corn for that good land which you are breaking up this year, for there is not other variety that will yield you the bushels which our high yielding Reid's Yellow Dent will produce.

## Legal Tender

This is one of the largest of the yellow varieties of Seed Corn, and has in the twenty year tests proven one of the most popular varieties in the corn belt.

The ears contain from 18 to 22 rows of deep golden kernels of a high oil content and this characteristic, together with the absence of the hard flinty texture found in many varieties makes it one of the most popular varieties for feeding purposes today and many feeders think so well of it that they will not buy other varieties as long as it can be obtained.

Our home was on an adjoining farm to the originators of this great feeding corn, and we believe that we are in a position to judge after all these years of the really high class qualities contained in this variety and as growers and breeders of corn, we can most heartily recommend Legal Tender; for it will give you a heavy yield of both grain and forage for its abundant foliage makes most excellent fodder and it is a corn that you can commence feeding early and one that will hold out well when pulled over the scales.

This variety is adapted only to the South Central and Southern half of the Corn Belt, as it requires 120 days to mature, but for any one growing corn in a latitude where it will mature we can most heartily recommend it.

We have grown this variety of corn on our own farm for a quarter of a century and have followed its development from infancy up and we know that for a corn to meet the requirements of the farmer feeder and dairyman, it cannot be surpassed.

**Description.**—The ears are large, uniform and cylindrical, containing from 18 to 22 rows. It has a GOLDEN yellow color which is quite distinct. The rows are wider apart than in the case of the Reids. It has a larger stalk and is a heavy yielder.

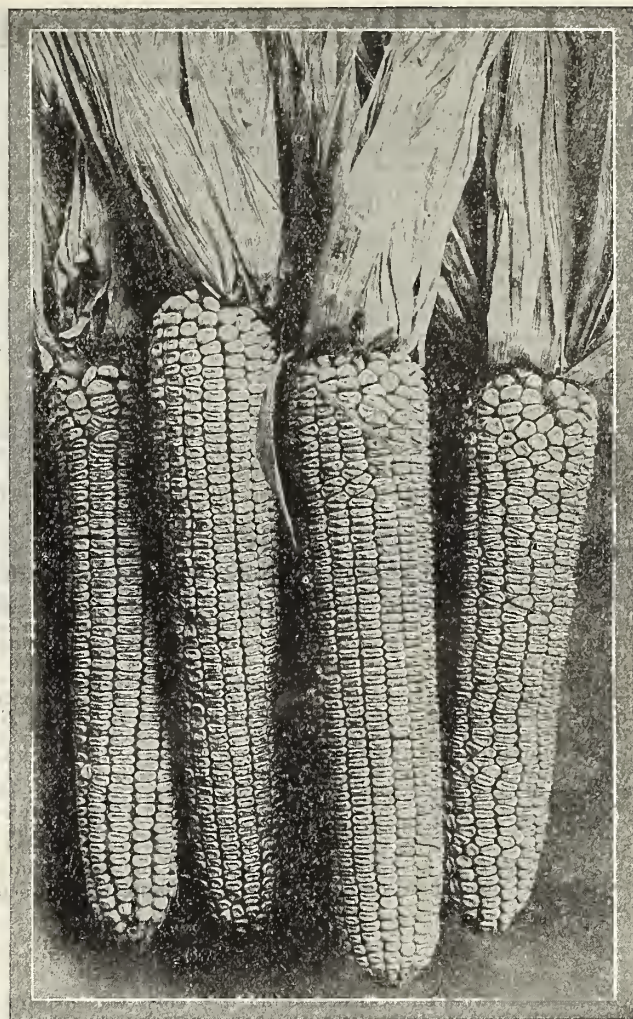
## Iowa Gold Mine Seed Corn

This is a very deepkerneled variety and will in a series of tests show a higher shelling percentage than any other variety. The wonderful feature about this corn is that despite the fact that it has such a deep kernel it is a very early corn and matures but little later than Pride of the North. All those who have grown Gold Mine are very enthusiastic over it and one hears many phenomenal reports in regard to it in the course of a year's business.

Remember when making up your seed list to include some of this variety, for it makes an excellent corn to plant last or use in case of a washout, chinch bugs, or in case anything else happens that you have to have some corn to fill in with that will give you a good yield and mature in 100 days.

This variety of corn is very popular and those desiring an early variety of yellow corn cannot beat the corn which we are offering you.

The ears are of medium size with rough, deep golden yellow kernels, rather wide between the rows, and cob small, allowing it to dry out very early, which makes it a very desirable variety, for it can be grown in every state in the Union.



Legal Tender.

## Improved Leaming

This is one of the oldest and most reliable varieties grown and has probably been grown over a wider range of territory than any other corn. It adapts itself very readily to new conditions of soil and climate and it has the reputation of being the hardiest and surest growing yellow corn in existence. It will produce well on light or heavy soils where other varieties will not thrive.

This variety is used quite extensively in the Northern and Western States and in Canada for fodder and ensilage, but it is especially adapted to the central part of the corn belt for producing a heavy yield. Leaming being one of the first distinct varieties known, was, of course, used quite extensively by the early breeders in the development of other varieties of yellow dent corn. Its characteristics were so well established that you can to this day distinguish some of these characteristics in any variety which Leaming was ever used upon.

This variety is very popular among the cattle feeders of the corn belt, for besides giving a high yield of corn per acre it is very easily masticated and especially when fed in the ear, as cattle can masticate the cob quite easily. It is very rich in oil and is an ideal corn from a cattle feeder's standpoint.

This variety is grown extensively in the East and North for fodder and ensilage, for besides producing a very heavy grain yield it produces a very luxuriant foliage and its large leaves are very much relished by all kinds of stock when properly cured, and because of this characteristic, this variety has become very popular throughout New England, Pennsylvania, New York, Ohio, Indiana, Michigan, Wisconsin and Minnesota, where it is extensively used for fodder and ensilage purposes.

**Description.**—It is of a deep golden color, the ears are slightly tapering from butt to tip, which is the most outstanding characteristic of the breed, the kernels are broad, deep, thick and slightly wedge shaped; the ears are quite uniform in size.



## Early Dent Varieties of Corn

### Early Yellow Dent

In order to meet the demands of the farmers in the northern part of Iowa, Illinois, Minnesota, the Dakotas, Wisconsin and Michigan, for a regular type corn which would generally ripen for them, we have been breeding up our Early Dent. We took as a base for producing this early corn the genuine Johnson type of Reid's Yellow Dent, and by making field selections we experimented in producing an early corn which although not quite as large as the original Reid's Yellow Dent is a corn of fair sized ear, which will mature in about 100 days and we believe after seven years we have succeeded in fixing a type which is extremely early and will under ordinary conditions mature anywhere that corn can be grown.

This variety has proven very successful in the East and has ripened there where they thought it was impossible to grow anything but flint corn. We do not hesitate to recommend this variety to any of our customers wishing to secure a variety of Early Dent, and we believe that it will mature for you earlier than any other Dent corn which you can secure.

**Description**—It is of the smoothest true Dent type, instead of being rough like the Johnson type of the parent ears. The grain is somewhat harder and has a rather flinty appearance. The stalk is thick but short and the ears are very uniform, both as to height on the stalk and size of ear; the cob is quite small, the kernels are of medium depth.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

### Silver King

#### The Great White Corn for the North

Silver King is one of the most useful varieties ever originated. It has been the means of extending the corn growing industry over a greater amount of new territory than has ever been done by a single variety. It was developed by Professor Moore of Wisconsin, who gave it the name of Wisconsin No. 7. It is especially adapted to growing in those latitudes where no other variety of Corn will mature. It has given phenomenal results in Northern Iowa, Minnesota and Wisconsin, and it is a Corn which stands to give a good account of itself wherever planted, for it is an exceptionally heavy yielder, and there is no doubt it has revolutionized the Corn growing industry in the North.

**Description**—The ears range from eight to nine inches in length, are very uniform in size and type. It is a pure white dent Corn; the ears are filled out well from butt to tip, the kernels are of good length, set compactly in straight rows, and it is early enough to mature in from 100 to 105 days. If you are in the extreme northern part of the Corn Belt you should certainly grow this variety. There is no corn so well adapted to your conditions as Silver King.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

### Pride of the North

#### The Great 90-day Corn

This most excellent variety of 90 day corn was originated by Mr. Goddard in Kossuth County, Iowa, and it became at once one of the most popular strains of early corn and as a catch crop to fill in with it has no equal.

This variety of corn does not require the space that larger varieties do and as you can grow four or five stalks to the hill, it is surprising what an enormous amount of corn you will secure from an acre from this variety. It often occurs that this variety planted very late in the season will out yield the larger varieties.

This variety is grown very extensively throughout the northern part of the corn belt and it has proven to be one of the very most popular varieties grown in that section. We can recommend this corn to anyone wishing an extremely early variety, for it is certainly a heavy yielding, strong, vigorous early variety that will give you the best of results.

**Description**—The ears are of medium size, being about eight inches in length and quite large around in proportion to their length. The kernels are deep and of a rich yellow color and pinched dent. The stalks, although short, are large and very vigorous growers.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

### Red 90-day or Early Bloody Butcher

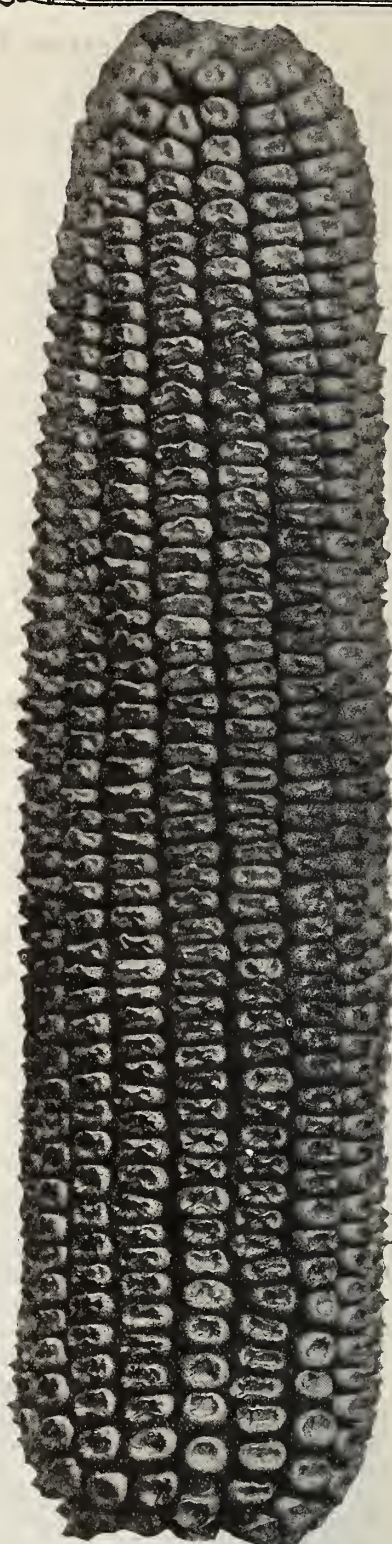
This variety of corn is a native to the State of Illinois. It has been carefully selected and kept true to type by some of the best growers in the State and is one of the most popular Extra Early varieties grown.

If you have to replant late in the season we know of no variety that will give you any better results than this White Cap Bloody Butcher, for it seems to have the ability to produce a crop when all others fail and it is surprising what a yield one can secure from this corn even under the most adverse conditions.

Many growers follow the practice of planting a few acres of this corn at the time when the main season crop is being planted, for it produces an abundance of early feed, which can be utilized two or three weeks before the other corn can be fed. As old corn is usually very high in price at this time this variety works into the cropping system very advantageously and often is the means of saving a big feed bill. You should at least grow a few acres of this corn to insure you against a shortage of feed during the late summer.

**Description**—In color it is cherry red with a white cap. The cob is of medium size and white in color. The ears are from 8 to 9 inches long and usually have 14 rows. The stalks are of medium height and the kernels dented. This variety will make a crop as far north as Minneapolis.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

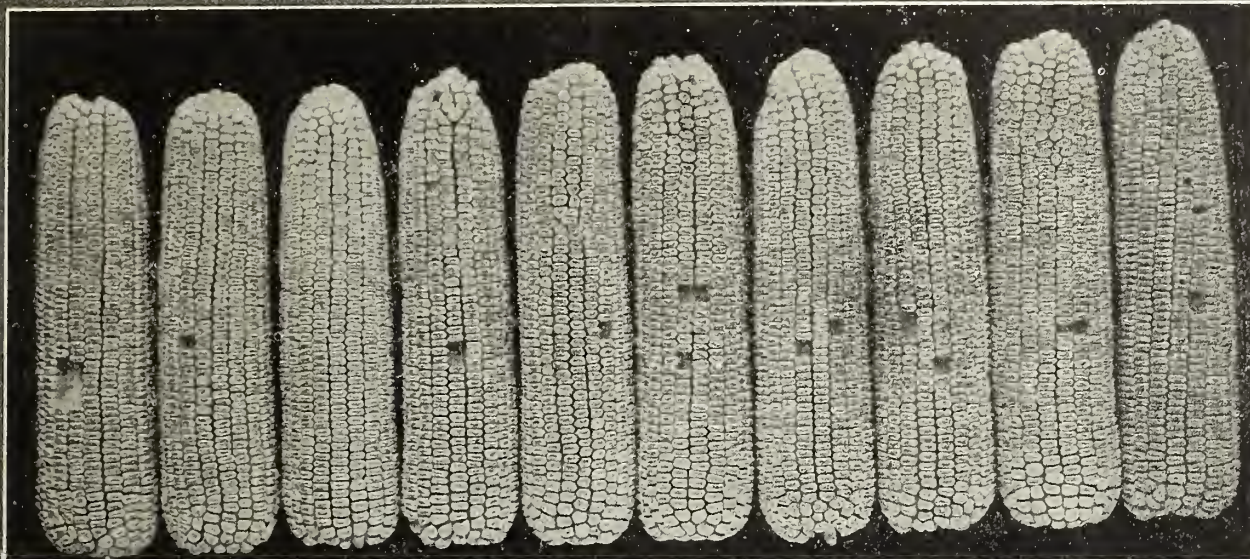


Early Yellow Dent.

### Don't Expect Too Much

Don't expect every ear of seed Corn we send you to be perfect, for it is an impossibility to get such Corn. We are sending you the very best quality of Corn that we can secure and Corn that we feel will give you good satisfaction. Remember that every order we ship you is backed by our Absolute Guarantee.





Illinois Ideal Always Produces a Heavy Yield of the Very Finest Corn.

## Illinois Ideal

### The Great White Corn of the Corn Belt

This is one of the largest varieties of white corns known, and it can be grown over a wide range of latitude. Farmers as a rule are getting tired of small-eared varieties of corn, what they want is a large ear with lots of corn on it, and to meet the demand of the wide-awake, progressive farmer for a variety of white corn that is large enough to secure an enormous yield and early enough to mature throughout the corn belt, we are introducing our Illinois Ideal, for we believe without a doubt it is the largest early maturing corn that has ever been placed before the American farmer. It is very productive, and its strong, vigorous stalks, that often have two large ears to the stalk, will make you wish you had planted all Illinois Ideal. Its great advantage over all other varieties in size and number of ears makes it possible to secure thirty-five or forty bushels more per acre than from common size corn.

**Description**—The Illinois Ideal is a white corn, whose great size and number of ears on the stalk gives it a decided advantage over other varieties of white corn. The ears range in size from 11 to 13 inches, and are large around according to their length. The ears are quite cylindrical in shape and are well filled over butts and tips. The kernels are rather large, slightly dented and of medium length. The rows are usually quite straight and the ears weigh from one to two pounds. The Illinois Ideal is certainly a wonderful corn, and under ordinary corn belt conditions will produce a sensational crop.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

## Improved Iowa Silver Mine

The Reliable Mortgage Lifter. This variety of white corn, because of its ability to produce bountiful crops even under the most adverse conditions, has long been regarded as the corn to meet every condition of soil, rainfall, temperature and tillage, or as "Topsy" would say, "It was not raised, it just grew," and if any variety of corn will just grow, Silver Mine will do it, for its deep root system enables it to withstand a maximum amount of drouth, and its ability to mature in 110 days insures its producing sound corn even during the most trying years.

**Description**—The ear is cylindrical in shape, has a small cob, the kernels are deep and rough and of a creamy-white color. The stalk is a little below the average height, and the root system is stronger and more vigorous than in any other corn, giving this variety the reputation of being able to stand more extremes of drouth and heat than any of the other varieties.

Our seed stock has been very carefully bred up and we are in a position to furnish you with something extra good.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

## The New Corn, Planter

### Our Blue Ribbon Pedigreed White Seed Corn

This variety is an improvement on the old "Boone County White." In it you will find a white corn that will meet with your approval anywhere it will mature. This is the show corn of the white varieties, and if you are looking for a white corn of good size and maturing in from 110 to 115 days, you cannot beat the Corn Planter.

The Corn Planter is without a doubt the best variety for a combination crop for grain, fodder and ensilage purposes that there is in existence, and it is considered by many to be the best breed of white corn known.

**Description**—The Corn Planter is a pure white corn, the ears averaging from ten to eleven inches in length and big in circumference in proportion to its length. It has from twenty to twenty-four rows of kernels, the grains fitting very tightly together, the butts and tips are well covered with deep, well-shaped kernels. It matures in about 110 days, making it a very desirable corn for growing throughout the central portion of the corn belt. It has a strong, vigorous, well-braced stalk, with the ears on a short, medium sized shank, and while the ears lop over because of their weight they do not blow off readily as in the case of many other large eared varieties.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.

## Saint Charles White

### The Great Ensilage Corn of the Corn Belt

St. Charles White is distinguished by its red cob and chalky white kernels, which makes it very much in demand by the millers for its extreme whiteness; produces a meal that cannot be duplicated by any other corn, and they will pay a premium for it. This corn is a very heavy yielder and is grown very extensively in many sections of the Corn Belt, for it not only yields a heavy crop of large, well shaped ears, but its heavy foliage makes it one of the most desirable fodder crops, and for ensilage it cannot be surpassed.

If you are growing White Corn for the market you cannot afford to be without the St. Charles White, for the additional revenue which it will bring you is a feature which you cannot afford to overlook.

**Description**—The ears are cylindrical in shape and large in size, ranging from 9 to 12 inches in length, with deep, medium rough kernels, whose chalky whiteness usually makes them command two to three cents above the market.

Our seed stock is of the purest grade, and while our prices may seem extremely modest for such exceptional quality, we wish to again call your attention to the fact that we are field seed specialists and handle hundreds of bushels of each variety, while other firms who handle smaller amounts necessarily cannot handle them as cheaply as we do.

Owing to unsettled conditions we are unable to quote firm prices. See list enclosed.



## Extra Early Varieties

We are in a position to take care of our customers very nicely on extra early varieties of corn, as we make a specialty of growing corn, especially suitable for growing in the extreme North, where the seasons are so short that they do not permit you to grow the dent varieties, and also for growing in the South, where the intense heat and drouth makes it impossible to grow any of the larger varieties.

We are always in a position to take care of our customers who meet with disaster with their corn crop by reason of floods, hails, etc., and always lay in a supply and get it all ready to ship out, so we can meet the rush orders which come in and cover us up late in May and during the month of June, and you cannot conceive of the corn which goes out at this season of the year on telephone and telegraph calls to rush it to them by express. So if you should need some of these varieties post haste, remember we carry a large stock and can make quick shipments.

Owing to Unsettled Conditions, See Green List for Prices.

### Minnesota King

This variety of corn is what may be termed a half dent. It is a cross between a flint variety and a dent. This variety can be depended upon to produce a crop and seems to have the ability to produce a crop when all other varieties fail and it can be regarded as one of the hardest varieties of corn known.

**Description.**—The ears are good sized, eight rowed with very broad kernels of an extremely rich yellow color. In appearance this variety is quite markedly distinct on account of its rich yellow dent characteristics. The stalk is of average height with a very heavy root system and ears about three feet from the ground, often producing two and three ears on the same stalk.

### Longfellow Flint

This is one of the most popular flint varieties known. It ripens in from 75 to 85 days and is very prolific. It is grown very extensively in the extreme north.

**Description.**—Ears are cylindrical in shape, very long, a color of rich and glossy yellow, weight of seed sixty pounds to the measured bushel. The kernels are large and wide and the cob very small. The stalks average about seven and a half feet in height and the ears about three feet from the ground.

### Sanford's White Flint

This is one of the standard varieties of flint corn, ripening in from 75 to 85 days, and is very productive. This variety has given excellent results in Minnesota and the Dakotas and has proven a very popular variety wherever grown, especially for ensilage and silage purposes, as the stalks are quite leafy.

**Description.**—Sanford's White Flint is an eight rowed white variety with ears averaging from ten to twelve inches in length, two to two and one-half inches in diameter, cob small, the kernel large and broad. The stalks grow very tall and usually have two to three ears on each stalk.

### Our Improved Early Yellow Flint

This variety of flint corn has been bred up by us especially for the purpose of meeting the demands of our customers who are located in such a latitude that they must have a corn which will mature in from 75 to 85 days. This corn is especially adapted to the Northwest and New England states. It is often used here in the corn belt for replanting.

**Description.**—Our Improved Early Yellow Flint is an eight rowed flint variety with ears ranging from ten to twelve inches in length and one and a half to two and a half inches in diameter. It is extremely well filled at both butt and tip and the kernels are large, broad and of a very distinct yellow color.

### Silver Triumph

This is a pure bred large white variety of flint corn. It is very productive and very early maturing as it matures in from 75 to 85 days. This variety is used quite extensively even in the sections of the corn belt where larger varieties can be grown. Because of its early maturing qualities it furnishes early feed at a time when feed is high and scarce and as it is a very prolific yielder can be grown to an advantage for such a purpose.

**Description.**—Silver Triumph is a large white slender ear, averaging around a foot in length. The kernels are broad and thick; it has more stalk than other varieties of flint corn and usually produces two ears on the same stalk. This variety can be planted as late as the first of July in the corn belt and mature a crop. It is especially adapted to the New England States, but can be grown anywhere that an early maturing corn is desirable.

### Evergreen Sweet Corn

This is the standard variety of sweet corn grown for fodder purposes. It produces an enormous amount of sweet succulent forage per acre. It comes on very early and when fed to stock they will consume a stalk and all. For fodder it cannot be beaten as it makes a fodder which is more palatable than the field corn fodder and the stock will clean it up better than any other kind of fodder which can be grown for them.

### Popcorn

Popcorn can very often be grown to advantage in a commercial way and no farm is complete without a few rows of this delicious confection; for who does not recollect with pleasure bleak winter evenings enlivened by a dish of delicious popcorn. One of the sacred duties of parents is to provide for the children an atmosphere of gayety and happiness. Nothing will promote good fellowship in the farm home like allowing the youngsters to grow a few rows of popcorn, that they can pop during the long winter evenings.

**Price.**—25c per lb., postpaid; 25c per quart your expense. See green list for larger amounts.

### GROWING THE CORN CROP

**Soil.**—Probably no other crop is as particular as is the Corn crop with reference to soil, moisture, and climate. The most satisfactory soil for growing a bumper crop of Corn is a rich, black loam, rich in organic matter.

**Preparation of the Seed Bed.**—This feature of Corn growing depends upon what kind of land this crop is to be grown upon. In case it is fall plowing it is usually double disked and given a couple of harrowings, and it is ready for the planter or the lister.

In the case of land which was in Corn the year before, it is usually double disked, harrowed and plowed, the plow being closely followed by the harrow to work up a fine seed bed. Some still follow the practice of disking their corn, using a lister, but this method is becoming obsolete.

**Planting.**—Corn may be either drilled or checked. Checked Corn is the most popular method, three kernels being dropped in a hill, three feet, four inches, or three feet, six inches apart; where the lister is used the Corn is dropped in drills fourteen to sixteen inches in the row.

**Cultivation.**—Many methods of cultivation are practiced in growing Corn and most any of them are successful if conscientiously carried out. The main fact to keep in mind in the cultivation of Corn is to keep the ground moving and see that it is thoroughly done each time and that it is not too long between cultivations, so that the ground will have no chance to crack and settle.

**Harvesting.**—Corn is either husked from the field by hand or with the Corn husker, or else harvested with a Corn binder, and placed in shocks from which the Corn may be husked by hand, or run through a shredder, fed from the shock, with the Corn on the stalk or placed in the silo.



Chicago,

Quality Seed at Wholesale Prices plus Profit Sharing

Illinois.



Showing the Great Growth of Sudan Grass, the New Sensational Forage Crop.

## Forage and Ensilage Crops

There never was a time when forage was such an item to the farmer of the United States as at present. For with hay selling at from \$12 to \$18 per ton, he must create something for less money to bring his stock through the winter.

This can only be done by the use of forage and ensilage crops. Ensilage probably plays the most important part in solving this problem for the stock men of today. To meet this requirement certain strains of corn and fodder crop have been improved upon to produce the maximum amount of forage upon the minimum amount of acres, and it is the purpose of this guide to present to you in a clear, concise and unexaggerated manner these crops which will meet these requirements and solve the question of roughage for you for the coming winter.

Every farmer should at this time of the year figure out just how many acres of land it will require to raise the necessary forage to put him through the winter. To do this, he must have a working knowledge of just what each forage plant he sows will produce, and the only satisfactory way this knowledge can be gained is through growing these different crops upon one's own farm. For while we have tried to present to you in an intelligible form just what each one of these crops will produce, we realize that we cannot place before you this information in such a form that it would be the same use to you that it would be had you grown some of these crops on your own particular farm.

We, of course, do not know of your soil or local conditions and we could not make a definite statement of which one of these forage crops would be the best for you to grow, but if you will tell us about your soil and local climatic conditions, we will take pleasure in assisting you to choose one or more that is best suited to your conditions, but you should by all means grow one of them, grow two of them, for no farmer, no matter how prosperous he is, or how much grain he raises, can afford to be without a fodder crop; many of these fodder crops produce a feed in every way superior to any hay crop that was ever grown and you can bring your stock through the winter in a better condition by using a fodder crop and selling your hay and putting the money in the bank than you can to feed up your bank roll, so we feel that any plant which will take the place of any other crop raised on a farm that can be converted into cash, no farmer can afford to be without.

### Sudan Grass

#### The Wonder Crop When All Else Fails.

Sudan Grass is undoubtedly one of the most wonderful crops that was ever introduced into the United States, and it will be the means of reclaiming more land than has ever been reclaimed by a single crop. While Sudan Grass will grow on almost any soil and in almost any climate, it is especially adapted to the arid and semi-arid regions of the Southwest. It belongs to the sorghum family, but it is more slender in manner of growth and more nearly resembles the true grass. It stools enormously. It grows from the height of four to seven feet, and will make a greater yield of forage under adverse conditions than any-

thing you can sow, for weather conditions seem to have but little effect upon it, and it will make a crop in spite of anything. In yield there is nothing that can come up to it, for it will produce three or four cuttings of the very choicest hay of from a ton and one-half to three tons per acre at each cutting.

We have seen some very wonderful fields of Sudan, not only in the corn belt, but upon the dry lands and in the dry farming districts in Colorado, South Dakota and Nebraska. We have seen it stand out tall and green during the hot, dry summer, when other forage crops were dry and brown. It is undoubtedly the greatest drouth-resister ever known, and it has certainly been a blessing to the dry land farmer of the semi-arid districts, for it has proven one of the best and most nutritious feeds for live stock which can be grown in any climate and we regard it as the greatest crop that can be grown on any farm.

We have grown this great dry weather crop upon our own farm, and are in a position to know just exactly what we are talking about when we tell you that it is the greatest crop ever grown. We are enthusiastic about it, and we know if you sow Sudan Grass once you will sow it every year, for it fills the bill as a silage, as a dry feed or as a soil crop, and you cannot afford to not grow at least a few acres, no matter how small your farm.

#### Be Sure the Seed You Sow Is True Sudan

Much of the seed upon the market is mixed with Johnson Grass, especially when grown in the Southwest where the Johnson Grass is becoming quite a pest; so be sure and use seed which comes from a reliable grower. We have an extra fine quality of Sudan Grass which was grown right here in Illinois. We wish to especially recommend this lot seed to you as we were on the ground and saw most of it before it was harvested.

See green list for prices.

#### GROWING THE CROP

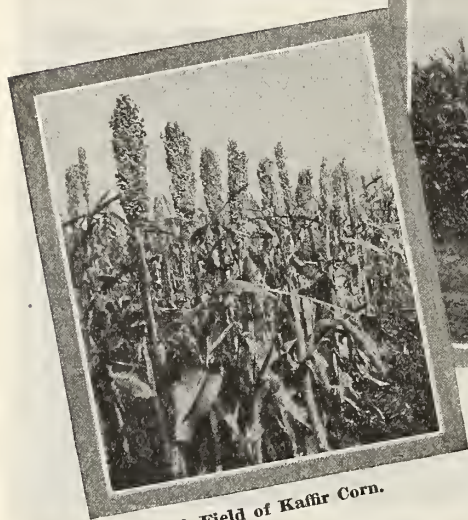
**SOIL**—It seems to require no special quality of soil. It seems to succeed equally well on black, clay or sandy loam.

**PREPARATION OF THE SEED BED**—No special preparation of the seed bed is necessary. In fact, Sudan Grass seems to require less work put upon the seed bed than any other crop, and I found in one instance where a very desirable stand of Sudan Grass was secured upon land which had had no preparation whatever except plowing. It was not harrowed either before or after seeding.

**SEEDING**—Sudan Grass may be sown broadcast in drills or planted in rows and cultivated. When sown in humid sections where there is plenty of rainfall, we would recommend sowing it with a grain drill at the rate of twelve to fifteen pounds of seed per acre, but if sown in arid or semi-arid sections, should be planted in rows at the rate of three to four pounds per acre and cultivated. It should not be planted until all danger of frost is past.

**HARVESTING**—The crop should be cut for hay as soon as the grass begins to head. If grown for seed it should be allowed to fully mature. In either case it may be cut with a mower or with a grain binder. In some sections of the West where it is planted in rows many were harvesting it with the corn binder. When sown for seed it is much easier handled when cut with a binder, but in growing the crop for hay, mowing is to be preferred, as it then can be cut closer to the ground and a much greater tonnage secured.





A Field of Kafir Corn.



A Field of Cane.

These crops produce heavy yields of the most succulent forage. They can be grown on almost any soil and in most any climate and are the solution for the Feed Bill Problem on every up-to-date farm. Their hardiness makes them very valuable forage crops.

## Cane Seed

Cane is without doubt one of the greatest producers of high quality forage which has ever been discovered. The West has learned to appreciate the wonderful qualities in this great forage crop, but the East yet has much to learn about it, for they have not learned to take advantage of this most excellent plant for producing their silage and fodder.

The cane plant produces from three to eight tons per acre of cured forage and it may be grown from Canada to Mexico and it will withstand drouth and other unfavorable conditions that would mean death to any other crop.

Many are prejudiced against this crop because of fatalities among live stock which they have heard of from time to time and many of which were made out of whole cloth or grossly misrepresented. It is true that cane under certain conditions has proven poisonous, but such cases are so rare that they are very nearly a negligible quantity. Many make a practice of cutting cane two or three times during the summer, but we prefer to sow the cane quite thickly so that it will not grow so rank and coarse and then cut it just after the first light frost, and we have found that on our own farms this has proven to be the most satisfactory way of handling cane both for ensilage and for fodder. The variety used for fodder is slightly different from the variety used for syrup purposes, as the stalks are somewhat more slender and more easily cured.

## The Early Orange Top Cane Seed

This variety is somewhat later than the early Amber, but it is a very heavy producer of foliage, and because of this fact, and that it is thought by some to be more drouth resistant than the other varieties, it is in more demand throughout the South and Southwest, but for the farmer in the corn belt and eastern states we believe that the Early Amber will give the best results.

Owing to unsettled condition of the market we ask you to refer to price list enclosed.

## Early Amber Cane Seed

The Early Amber is the most common variety of Cane grown; there are two ways of planting it; one is by broadcasting, sowing from one to two bushels per acre, the other is to drill with a corn planter and cultivate the same as you would corn. It can be grown on any soil or in any climate from Maine to California. It will thrive on the richest land you have, or on the poorest, and it is one of the greatest destroyers of obnoxious weeds in existence. It can be sown any time from April to July and be harvested any time between the time it is a foot high and the first freezing weather. Try a little cane this year; you will be surprised at the wonderful results you will secure from it.

Owing to unsettled condition of the market we ask you to refer to price list enclosed.

## Kafir Corn

This is, without doubt, one of the most valuable fodder crops for the Western and Southern States. It is quite drouth resistant and is valuable both for fodder and grain and many farmers in the Southern States are using it for ensilage in preference to corn. In the Southern and West-

ern States it is sown in rows and cultivated the same as field corn, but in the corn belt states it is usually sown broadcast at the rate of from 75 to 100 lbs. per acre, and when handled in this way, it produces excellent forage, as the stems are small and fine.

In the southern part of the corn belt and throughout the great Southwest it is the principal grain crop grown. Many fields often produce at the rate of 50 bushels per acre. It is an excellent food for poultry and no farmer should be without at least a few acres for this purpose alone.

Our seed stock has been secured from a section where special efforts have been made to produce not only the highest yield of grain per acre, but also to produce the maximum amount of high class forage. Special care has also been taken with our seed stock to preserve its germination, and since Kafir Corn loses its germinating qualities more quickly than any other seed when not properly handled, you should make sure that your Kafir seed comes from a reliable source.

Owing to unsettled condition of the market we ask you to refer to price list enclosed.

## Feterita

This is a new grain which has recently been introduced by the United States Department of Agriculture from Egyptian Sudan, and it has proven one of the greatest blessings to the farmer in drouth stricken regions that has ever been introduced.

It very much resembles the Kafir plant in appearance, but the heads are more blocky and it is a much bigger yielder of grain. The seed very much resembles that of Kafir corn, but is of a pearly white color. It is very much earlier than Kafir corn and has been grown very successfully after a crop of Kafir or field corn has been destroyed and it was too late to plant either of them again. One seed often produces from six to eight shoots as it stools very heavily; for this reason you should not sow as thick as Kafir corn. It may either be sown in drills or broadcast, but in most cases it is sown in drills and cultivated. Very astonishing results have been obtained with this great grain crop in Oklahoma. It is one crop that will beat the hot winds and drouth.

The feeding value of Feterita as a grain or as forage is equal in every way to Kafir, many prefer the grain to that of Kafir corn because of it being softer and not requiring grinding before feeding.

Owing to unsettled condition of the market we ask you to refer to price list enclosed.

## Russian Flax

This is the variety almost exclusively grown in the Northwest. Our seed has been grown on clean, new land and it contains no mustard. Although you can secure Flax seed almost anywhere in the Northwest, Flax seed containing no mustard is hard to get, for the reason that but few seedsmen are equipped to clean mustard from Flax, and even in case they are, it is an expensive process, and large quantities of seed are sown containing mustard, which is in a large measure responsible for this pest becoming so prevalent.

PRICE—At the time of going to press the market is in a very unsettled condition, and we are going to ask you to kindly write us for prices before buying.



## Milo Maize

Next to Kaffir Corn, Milo Maize is probably the best known of the grain sorghums. It grows larger heads and produces a slightly larger grain, the heads are slightly drooping and it can be grown with less moisture than Kaffir Corn.

See price list.

## Broom Corn

The price of Broom Corn has advanced until it has become one of the most remunerative crops. We are getting some very fine seed from a grower in Oklahoma, who makes a specialty of high grade Broom Corn. It is one of the best paying field crops that can be raised in many localities, and it will certainly pay you to investigate and see if you cannot raise this crop to a profit. Better try a small patch this year, at least enough to make your own brooms, for you can for a few cents get sufficient seed to raise enough corn to make brooms, which if you had to buy them at 50 cents apiece they would cost you a nice little sum.

We handle two varieties of seed, the Improved Evergreen and the Dwarf Evergreen. See price list.

## Pencillaria

Pencillaria is a new fodder plant with very heavy yielding qualities, producing a heavy growth of broad dark green leaves, which are very nutritious and resemble very much those of corn. It is a native of Central America and it is claimed by some that if the plant is allowed to grow until the seed is formed that it will produce the heaviest crop of forage of any plant in existence.

It should be planted in drills, six inches apart in the row, for it stools very much like wheat. It should not be planted, however, until about corn planting time. It should not be covered over a half inch in depth, then cultivated the same as you would corn. It is an enormous grower.

See price list.

## Jerusalem Corn

This is a most excellent crop for dry countries and phenomenal records have been made by it under the most adverse conditions. It grows about three feet high, makes one large main head and several smaller ones. The grain is pure white and is good feed for all kinds of stock, and in some of the drouth stricken countries it has been used as human food. It should be sown in drills at the rate of about five pounds per acre and the crop handled in every way the same as Kaffir Corn.

See price list.

## CULTURE OF FORAGE CROPS

**Soil**—While forage crops prefer a moist soil, they will succeed under a wide variation of soil and climatic conditions and may be grown from Maine to California.

**Preparation of the Seed Bed**—No special preparation of the seed bed is necessary, and although these crops will well repay one for any work put on the preparation of the ground, a good discing and harrowing is usually all that is done to the ground that has grown a cultivated crop the previous year.

**Seeding**—The rate of seeding is governed entirely by the kind of crop one wishes to grow. If hay is desired, most of these crops are seeded at the rate of a bushel and a half to two bushels per acre, as the hay will not be as coarse as if a higher seeding is made. When the crops are grown for seed, they are usually planted in rows and cultivated.

**Harvesting**—When cut for hay, these crops are usually mown, raked and placed in good, rigid cocks and then fed to the stock from the cock. This method saves a great deal of labor and as the crops are not usually harvested until late in the Fall, they are not exposed to much rainfall and the snow does not seem to hurt the feeding value of the crops.

When these crops are harvested for seed they may be either topped with knives or cut with a corn binder and thrashed.

**Feeding**—These crops may be fed direct from the shock or placed in stacks and hauled to the bunks from the stack. They are also used quite extensively for filling the silo, and when used in this way a larger amount of highly nutritious feed can be secured than in any other way.

**Caution**—The forage crops belonging to the sorghum family should not be pastured or fed green, as at a certain stage of their development they form a poison that is very injurious to all live stock.



Buckwheat, a Very Profitable Short Season Crop.

## Buckwheat

Buckwheat is much underestimated by the farmers of the United States today. It is often looked upon as a crop to be sown as the last resort where some other crop has failed or where some particular plot of land has been in such condition that it could not be put in condition to seed until too late for the sowing of any other crop. The real value of Buckwheat is that it may be worked into rotation and used in a two crop system for seeding the land upon which a crop of winter wheat or rye has been grown to this crop late in July or early in August and harvesting a second crop of grain from the land with little extra labor.

Buckwheat is one of the best cover crops that can be grown in the orchard and the flowers are very much relished by bees. Buckwheat is the cool season's crop and one which can be sown very late in the season and will produce very satisfactory return. It can be handled at a time when other crops are not needing attention and we believe it should be much more generally sown than it is at present.

## GROWING THE CROP

**Soil**—Buckwheat is a rapid, vigorous grower and will do well on the poorer and lighter soils. While it is best adapted to a somewhat sandy, well drained soil it will flourish on the heavier soils and when grown upon heavy clay soil it is said to leave the soil in a very mellow condition.

**Seeding and Tillage**—The ground should be prepared as for other cereals and it may be either sown broadcast or by drilling, using from a peck to a half bushel of seed to the acre.

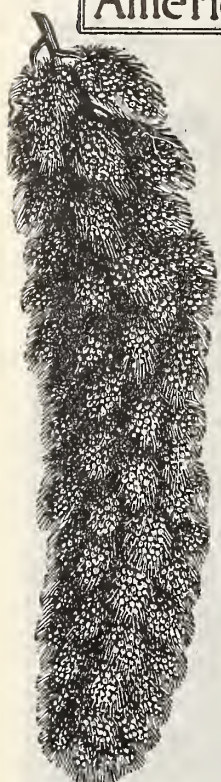
**Harvesting**—As Buckwheat blooms continuously the seeds do not all ripen at the same time, but it is generally harvested in the latter part of September, or the first of October, when the first seed has matured. The grain shatters very badly and great care must be taken in harvesting to prevent the loss of seed. A header or grain binder or mower with a bunching attachment have been used very successfully in harvesting the crop.

## VARIETIES

**Japanese**—Japanese is a variety generally recommended for this section, as it is very productive and succeeds well under Northern conditions. The plant is strong and vigorous and the flowers are not as liable to be injured by the hot weather as the other varieties, and the grain is somewhat larger. Price: Your expense, ¼ bu., 50c; ½ bu., \$1.00; 1 bu., \$1.75.

**Silver Hull**—The grain is of a light gray color with a thin husk, it is a heavy yielder and very early. It is preferred by the flouring mills to the other varieties because of the high proportion of flour to bran. Price: Your expense,





German Millet, Often Produces Four or Five Tons of Very Fine Hay.

## Millets

### Sow Nothing But True Southern Grown Seed

Millets are productive short season annuals, and are exceedingly useful for sowing when other crops fail. Because of this characteristic they have become known as catch crops. In the Northern States Millet is grown almost exclusively for hay, and because of this fact, the Millet seed grown in Northern climes does not produce as fine a quality of hay or seed as the Southern Millets, as they become dwarfed, and crops grown from Northern seed do not become as tall or grow as fine as Millets grown in the South. That grown in the North, even from Southern seed, deteriorates and becomes what is known as Common Millet. The plants not only grow shorter and coarser in character, but the seed undergoes a decided change which is distinguished by experienced seedsmen.

Many unscrupulous seedsmen handle large quantities of this Northern grown seed and place it upon the market as Southern Millet. This practice enables them to make the farmer a price much below that which the reliable seedsmen can make upon the true Southern grown Millet, and we wish to caution you against such a situation and emphasize to you the importance of buying your Millet seed only from reliable sources and also caution you against using Millet which has been grown in the North, for although a fair yield can be secured from this seed a crop can be more than doubled by sowing our true Southern grown Millet.

#### GROWING THE CROP

**SOIL**—Millet is particularly adapted to new land, and it is being grown under ideal conditions when placed upon prairie sod or newly cleared timber land. Being a coarse feeder it prefers loose, sandy soil to clay.

**SOWING**—The amount of Millet to sow per acre is about three pecks for hay, and one peck when sown for seed. In the case of the broom corn Millets, the seed is considerably larger and about three pecks of seed should be used per acre. Millet may be sown any time from early spring until late summer, and it is because of this wide variation in the time of seeding that it has become so popular throughout the country.

**TILLAGE**—Millet, in most instances, is either sown broadcast or with a grain drill, and in such cases requires no tillage, but in some instances when grown for seed it is sown in rows and cultivated. In the case of poor and very weedy soil, this practice is to be recommended.

**HARVESTING**—The method of harvesting depends upon whether the Millet is to be fed green, used for hay or cut for a seed crop. It is well adapted for soiling purposes and is used as a green feed quite extensively in the East, and in some instances has been utilized as a temporary pasture. When cut for hay, which is the most common use to which Millet is put, it is usually cut just as the heads appear, although some follow the practice of allowing it to stand until the seed is ripe. No definite rules for curing the hay can be given owing to different climatic conditions.

**FEEDING VALUE**—Millet hay is highly nutritious and is readily eaten by all classes of live stock. As far as chemical composition is concerned it has a slight advantage over Timothy, containing a slightly higher per cent of ash protein and nitrogen free extract, which makes it more desirable for young and growing stock.

#### GERMAN MILLET

This variety is very popular in the Central and Southern States. It is far superior to common Millet, both in quality and yield. It grows from four to five feet in height and often makes the splendid yield of four or five tons per acre. It is drought-resistant, and because of that characteristic has become very popular throughout the Southwest. There is no doubt that Millet should be more commonly grown, for it undoubtedly has a large field of usefulness in the Eastern States. In these states it is customary to grow only one crop on one field, but it is possible to grow a winter crop of rye hay and a summer crop of Millet in most parts of the East, and on

farms where all crops are fed, there is no doubt but what German Millet, if properly handled, would materially increase the income upon such farms.

It is very necessary in sowing this crop to secure Pure Southern Grown Seed. Our seed is especially grown for us in Tennessee, which State produces the best quality of seed that can be procured. If you are going to be a little short of hay or if you are going to need some green feed to tide you over while the pastures are dry and brown, try a little genuine German Millet. You will be surprised at the results. Be sure you secure Southern Grown Seed. It will double the yield of the crop.

**PRICES**—1 pk., 60c; ½ bu., \$1.00.

#### JAPANESE MILLET

This variety of Millet is especially adapted to wet, low grounds, and when grown under such conditions has been known to produce some phenomenal yields, producing large amounts of hay, which is readily eaten by stock. One variety has been exploited under the name of Billion Dollar Grass. It grows to an enormous height; for this reason it should be sown in drills, leaving room for cultivation. When sown in drills use about 10 pounds per acre, but if sown broadcast, sow about 15.

#### SIBERIAN MILLET

This variety of Millet was imported from Russia, and being somewhat earlier than the German Millet, it has been found to be very valuable in the Northern States. It does not grow as rank as the German Millet, but produces a very fine quality of hay, and its early maturing qualities make it a very desirable crop to grow as a catch crop. It should be sown at the rate of thirty-five or forty pounds per acre. See price list.

#### HOG OR BROOM CORN MILLET

Because of the very short season to which it is adapted, this variety of Millet has become very popular in the far North. It is very drought-resistant. Although the stems are much larger, they are not so tall. In recent years it has gained considerable prominence in the Dakotas and adjacent states, and although it does not produce as large a yield of forage, it produces an enormous seed crop, and the seed is very desirable for poultry feeding purposes.

#### PEARL MILLET

This variety of Millet grows very tall and yields an extraordinary amount of nutritious feed. It should not, however, be allowed to reach over three or four feet in height before cutting. It will then furnish continuous croppings for either soiling purposes or hay. It is a wonderful crop for use on the dairy farm. **Price:** 10c per lb.

#### COMMON OR NORTHERN MILLET

This variety of Millet does not yield as good a quality of hay or as much per acre as does the German Millet, but it is much cheaper in price than the true German Millet, and we have a lot of seed that is as near perfect in quality as we can secure of Northern grown seed, and while we do not advocate the use of this variety, we handle it to meet the demands of the grower who wishes to secure the cheaper quality of seed. See green list for latest prices.

#### HUNGARIAN MILLET

(Dark Seed.)

This variety is somewhat earlier than the true German Millet and is very popular in the Eastern States, where seasons are shorter and drought is not so common as in the West. It makes large yields on good soils in most seasons.





Our Annual Pasture Mixture Produces an Abundance of Feed for All Classes of Live Stock.

## Rape

Though only of comparatively recent introduction, Rape is now considered one of the most valuable of forage crops. If you have never tried Rape, be sure and sow some now. It is the greatest late season crop that can be grown. It may be sown any time from early spring until August, and may be sown on nearly every available soil in the United States and Canada. Rape sown in corn at the last cultivation will produce a growth of the most succulent and palatable forage of from fifteen to twenty inches in height. Rape thrives best in cool weather and will produce an abundance of forage, even after hard freezing weather commences.

Rape is especially relished by hogs and sheep and some phenomenal returns have been secured from pasturing hogs and sheep upon rape, and the Iowa Station has shown by a series of experiments that from four to six dollars per acre can be made from rape with hogs and sheep.

The Iowa Station has produced sixty bushels of oats and eighteen tons of rape, the oats and rape being sown together in the spring. The rape did not interfere with the harvesting of the oats and it afterwards produced eighteen tons per acre.

### Advantages Derived from Growing a Crop of Rape

1. You can secure two crops from the same land.
2. It produces pasture weeks after all other forage plants have been killed by frost.
3. Is the greatest forage for sheep that can be grown.
4. A better finish can be put on a lot of hogs when being pastured upon Rape than by pasturing on any other crop.
5. Rape can be sown at the cost of about 30 to 40 cents per acre, and no other such an amount of green feed can be produced for as small an outlay for seed.
6. Rape is succulent, nutritious, palatable food for all kinds of stock.

### Rape One of the Most Profitable Crops You Can Grow

As land becomes more and more valuable, new methods are constantly being devised which will increase the yield in power of an acre of land and yet not rob it of its fertility. Rape meets a long-felt want in this respect, for it is not only possible to secure a crop of small grain or corn upon the land, but it is also possible to grow an enormous quantity of the most palatable and succulent forage upon the same land, and by pasturing off the rape, no ill effects on the land will be caused, as practically all of the fertility is returned to the soil.

We are making very low prices in Dwarf Essex Rape, considering the fact that the European war has made the business of importing seed a very hazardous one, and compels us to pay the high ocean rate and an insurance rate that is almost prohibitive. Although because of unsettled conditions abroad we are unable to quote you firm prices, but it may be conditions will clear up by the time you are ready to sow and we will be enabled to bring the seed over which we have purchased in Europe at a less figure than we have here quoted you. If you write us when you are ready to sow we will give you the benefit of the market and can assure you that we will be able to furnish you the best quality at the lowest price obtainable.

Price—Postpaid, 25c per lb. Your expense, 5 lbs. or more, 18c per lb. Ask for prices on larger amounts.

## Our Annual Pasture Mixture

This pasture mixture has been prepared with the idea of producing the greatest amount of green feed in the least possible time. It is especially suitable for sowing in feed lots, vacant places on the farm where other crops have failed or where you were for any other reason unable to utilize this space.

This pasture mixture meets a long felt want for a crop which will produce an abundance of green feed when the pastures are bare and brown. You may think you have plenty of pasture for all your stock and would have under normal conditions, but some unforeseen circumstance arises, as it always does at some season of the year, and you find you are short of feed. Here is where our pasture mixture will repay you many times its cost. It is the best Pasture Insurance you could have.

There is no better catch crop than our American Pasture Mixture, for it can be sown in July or August after a crop of Rye, Winter Wheat or Barley has been removed, and will produce an abundance of green nutritious feed throughout the late summer, fall and early winter months, at a time when pastures are cropped short and you would have to be feeding your cows, pigs, sheep and cattle high priced grain which you can just as well save and turn into cash, and at the same time be furnishing your stock with a more nutritious feed than you possibly could from the granary or the barn, and send them into winter quarters in much better condition than upon high priced feed stuffs.

Our Annual Pasture Mixture is made up of seeds producing plants that are annuals only. This mixture has been carefully re-cleaned and is free from noxious weeds, and all impurities of every kind whatever, and we are especially anxious to have you at least sow a small patch of this combination of the more vigorous growing, productive and most palatable annuals known, and we feel sure that it will be the means of solving your pasture difficulties for you. We do not believe any farmer can afford to be without at least a small patch of mixture.

Price—Your expense, 10 lbs., 50c; 25 lbs., \$1.10; 100 lbs., \$4.00.

### THE CULTURE OF RAPE AND OUR ANNUAL PASTURE MIXTURE

These two crops can be used in much the same way and succeed under about the same conditions and for this reason we are giving you one method of culture that we believe will cover both crops.

**SOIL**—These crops will grow on nearly any soil but prefer rich loam.

**PREPARATION OF THE SEED BED**—No special preparation of the seed bed is needed. Rape may be sown in connection with some other crop or as a catch crop after some crop has failed or sown in the corn at the time of the last cultivation. All Annual Pasture Mixtures may also be sown in the corn or as a catch crop but most frequently it is used to secure a quick rapid growing pasture on some farm where there is an insufficient supply of pasture grasses.

**SOWING**—These crops may be sown any time from early spring until mid summer and while rape only requires from 5 to 8 pounds of seed per acre we advocate sowing 40 to 50 pounds of the Annual Pasture Mixture. When seeded with these amounts of seed the land furnishes an enormous amount of pasture and a cheap lot of feed can be grown. These crops are especially adapted for pasturing sheep and hogs and we know of no way by which as large an amount of pasture can be secured in a short time as by using either our Annual Pasture Mixture or Rape.





From the Red River Valley Where the Best are Grown.

## Potatoes

Our stock of seed Potatoes is grown almost exclusively in the Red River Valley of Minnesota and North Dakota. This district produces the best seed Potatoes which can be grown anywhere in the world. The big Potato growers of the United States have discovered that they can do nothing which will pay them better than to secure seed Potatoes from this district. These Northern grown seed Potatoes seem to have the life, quality, vigor and growth necessary to the production of a high class crop of tubers. A crop grown from Northern grown seed will outyield a crop grown from seed secured from any other section.

### How Our Seed Potatoes Are Grown and Handled

We contract with the large growers in the North to grow so many acres of Potatoes for us, especially for seed purposes. This seed is clean, healthy and free from scab, and we in this way secure the best quality of seed Potatoes which can be produced. In the fall we ship in several cars to our frost-proof warehouse in order to be able to supply the early Southern trade, but the big bulk of our Potatoes are left in the North, where, being stored as they are under ideal conditions, they reach us in March, solid and dormant, and in much better condition to send out to our customers than if we shipped them down from the North early in the season, for it seems that Potatoes not only grow to the highest state of perfection in these far Northern States, and are able to transmit this quality to the succeeding crops, but they keep much better in the earthen cellars, especially constructed for the purpose than in any artificial warehouse which we might construct from stone, brick and concrete.

### All Our Seed Carefully Hand Sorted

All our seed Potatoes are carefully hand sorted from carefully selected stock, such as you will not secure from any other source, and we feel that we haven't the words at our command to place before you in language strong enough to really do justice to the exceptional quality of seed Potatoes which we are able to offer you.

### We Are Not Introducing Questionable Varieties

All of the seed Potatoes which we are offering you are standard, well known varieties, and we are not placing before you some new and unheard of sports which have made some phenomenal yields or grown to an enormous size. We are simply placing before you for your careful consideration the best lot of Northern grown seed Potatoes of old, well known, reliable varieties, which we have been able to produce under ideal conditions of soil, climate and tillage. I believe we are able to offer you the greatest values in Northern grown seed Potatoes which you have ever been offered.

### How Our Seed Potatoes Are Shipped

We ship our seed Potatoes any way our customers desire, but our list price is based on bags being used in shipments. Should you wish to have your Potatoes sent in barrels, add 10 cents per bushel to cover the extra cost; if in one and one-half bushel baskets, add 15 cents a bushel. A bushel of Potatoes cannot be placed in a bushel basket, or 60 pounds of Potatoes to the bushel, and we are forced to make shipment of a bushel in one and one-half bushel baskets. Some firms offer Potatoes in these measured bushel baskets, and in ordering the seed Potatoes this fact should be taken into consideration, as a bushel of Potatoes by weight cannot be placed in a bushel measure. This method of shipping in baskets is very satisfactory and the seed Potatoes usually arrive in excellent condition, while those shipped in bags are always more or less skinned, and when shipped in barrels it necessitates paying the freight on 20 or 30 pounds for the container.

### Date of Shipment

While we ship Potatoes to you any time you order them shipped, it is very risky to have them shipped before April 1st, as we do not take the risk of their freezing until that time, but if you wish them shipped sooner and you take the risk we will make shipment for you. We ship large quantities of Potatoes by express and small quantities by mail before this time, but we do not take the risk of their freezing

by freight until we are confident the weather is safe, so when no special instructions are given to the contrary we hold your order until in our judgment there will be no danger from freezing in transit.

### A Word About Prices

At the time of going to press the market is in a very unsettled condition and it is an impossibility to accurately estimate the values, but at the time of mailing we will enclose you our green list, which will give you the latest quotations. To those who order seed Potatoes in large quantities take the matter up with us before ordering so that we can keep you posted on our best prices. Kindly mention the number of bushels and variety wanted when inquiring for special prices.

## Varieties

### RED RIVER EARLY OHIO SEED POTATOES

The growers in the Red River Valley of North Dakota and Minnesota have specialized on the Early Ohio for many years, and they have developed it to the highest state of perfection. No finer seed can be found anywhere than this Red River grown Early Ohio, for the growers in that district have put their best efforts forth and by careful selection of the seed stock, careful methods of cultivation, and the experience in handling the crop which, following the business for a generation has made possible. They have produced a variety which is undoubtedly without an equal for smoothness, uniformity and typical shape.

The Early Ohio Potato is so generally known that it requires no extended description. It is more popular than any other variety, as shown by the greater number of sales for seed stock. The Early Ohio can most always be depended upon to give a satisfactory yield, for even in localities where climatic conditions are not suited for the production of a late season crop of Potatoes, the Early Ohio can be planted early and will develop before the hot dry weather begins. Taking the country over, there is no Potato which meets with such universal satisfaction as does the Early Ohio, and this extra selected seed stock which we are offering you is the best that can be secured. It will ripen a week earlier than your home grown Early Ohios, and will produce a much larger yield, of smoother, larger-sized Potatoes. This seed stock is free from scab, dry rot and other diseases so prevalent among Potatoes grown farther south. Every bushel is backed by our Absolute Guarantee and if not perfectly satisfactory return them and your money is waiting for you.

### WHITE OHIO POTATOES

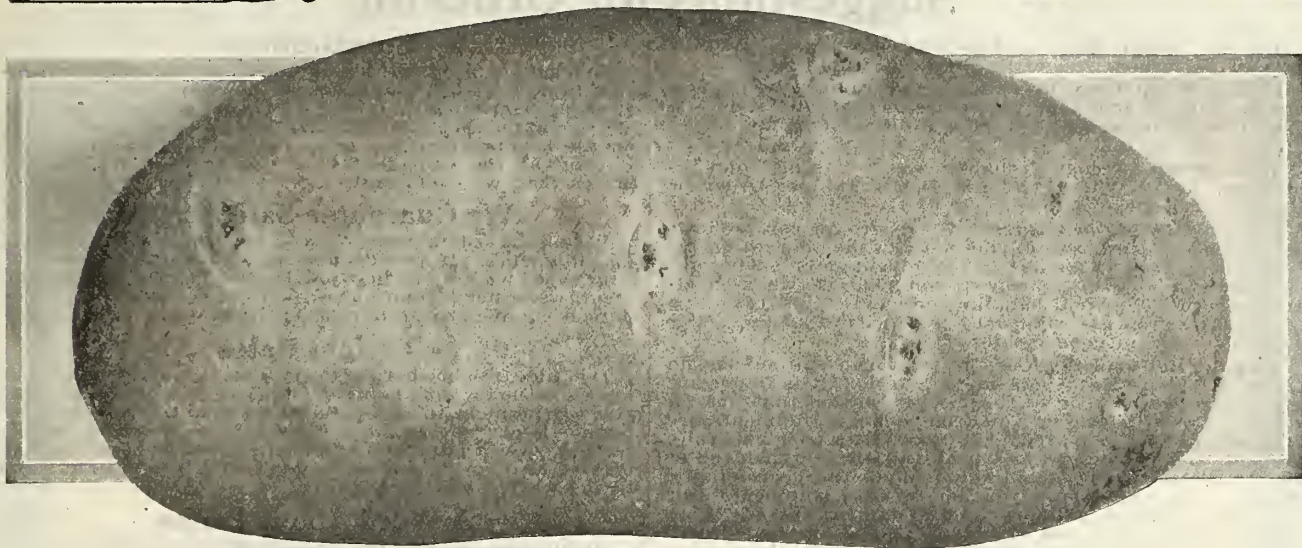
This is a seedling or sport of the Red River Ohio. It is very similar in every way, except that it is different in color, being pure white with pink eyes. This variety is not grown as extensively as the Red River Ohio, and we only have a limited stock to offer you, so kindly place your order at as early a date as possible, as there will undoubtedly be orders received that we will be unable to fill, as this new strain is becoming very popular.

### EARLY SIX WEEKS

This Potato is a dark, brownish pink in color, is of medium size, oval and slightly flattened in shape, skin is smooth with a few netted spots at one end, eyes of medium size and shallow. This variety has proven very popular, especially for the South where it necessitates the production of a Potato which will develop early in the season and escape the dry, hot weather. Because of the vigorous growth which it makes, and the earliness with which it matures, the Early Six Weeks has proven a very popular Potato for the early season crop. Our stock has been carefully selected for early maturing qualities, and we have some exceptionally nice Potatoes of this variety to offer you.

We are unable to quote firm prices. See price list enclosed. Good for month in which issued.





One of the Best.

### EARLY ROSE

This variety has been a great favorite for many years, and many growers claim it has never been excelled in quality and productiveness. It cooks up mealy, and is of a very fine flavor. It is light pink in color, rather elongated in shape and of good size. This is one of the earliest varieties of Potatoes that can be grown, and we wish to recommend it for your early season crop. Grow some of these fine tubers and have new potatoes while your friends are eating old ones. Our seed stock has been grown in the Red River Valley, and we feel sure that we are in a position to offer you some great values in this variety.

### THE IRISH COBBLER

The Irish Cobbler is a medium early maturing Potato. They are increasing in popularity among the best Potato growers, especially among market gardeners. This variety is grown very extensively throughout the South and in some sections is being grown to the exclusion of all other varieties. When this variety was first introduced, no special claim was made for it as an early maturing variety, and it was rather regarded as the main season crop. They have, however, on account of being grown extensively in the North, and because of the fact that the seed stock has been selected for the purpose in view of promoting its medium early maturing qualities, until today it may be considered as one of the medium early maturing varieties.

**Description**—The Irish Cobbler is round and uniform in size and shape, and of a creamy white color. The flesh is white and of fine quality and flavor. It is especially noted for its heavy yielding qualities, and this characteristic together with its general thriftiness and ability to stand adverse conditions such as rust, blight, etc., makes it a very superior variety and one which will meet with the approval of the grower at digging time.

### RURAL NEW YORKER

Rural New Yorker is the standard main season crop. It is very distinct and a valuable late crop variety. It makes a heavy, healthy, vigorous growth and attains a very large size. The tubers are very solid, and it is a very heavy yielder. It is quite drouth resistant, and for a main season crop and one which will keep until new Potatoes come, it cannot be beaten. This is a variety that will produce a big yield for you.

### RED ROSE

Red Rose is a medium late variety, elongated in shape and very large and is an excellent yielder. It is a great Potato for localities with a short season. It is very hardy, making a strong, vigorous growth. It is not subject to blight or scab, for a Potato maturing rather early, and yet not an early Potato we can most heartily recommend the Red Rose, for it is a high class variety in every respect.

### Potato Eyes by Mail

To those who only grow a small lot of Potatoes, a very convenient way of securing seed without paying freight or express charges on small quantities is to secure the Potato eyes. We are offering this advantage of your being able to secure the Potato eyes without having any express or freight charges to pay.

Realizing that it is just as important for the small grower to be able to secure Northern grown Potatoes as it is for the large grower, we have carefully prepared Selected Eyes from our very choicest stock, and are offering them to you so that you can secure a new start of a desirable variety without much expense.

These can be sent without much danger of freezing. A customer can secure them early without taking any risk. By our method of preparing the eyes for shipment, they will keep in good condition for many days before planting. We guarantee safe arrival in good condition.

In planting in hills, allow three or four eyes to each hill; if in rows, drop eyes about eight or ten inches apart. These eyes are packed in boxes, which have been plainly labeled, and they mean a great saving to our customers who are so far away that their express and freight rate would be an item of expense.

**PRICE**—Eyes of any variety listed, 25 eyes, 30c; 50 eyes, 50c; 100 eyes, \$1.00; 300 eyes, \$2.50; 500 eyes, \$4.00. Special—100 eyes of 3 varieties, \$2.50. All postpaid anywhere in the United States.

### GROWING THE CROP

**SOIL**—The ideal soil for a crop of Potatoes is one so light as to offer no great resistance to the enlargement of the tubers, and so well supplied with organic matter as to be rather moist without being wet. It should be so rich as to furnish an unfailing supply of fertilizing ingredients.

**PREPARATION OF THE SEED BED**—Although a Potato requires a rich soil, it is more important to have a soil which is in proper mechanical condition than it is to have the natural fertility. The success of the Potato is largely dependent on the crop preceding. A very satisfactory method of handling the Potato ground is to plow under a crop of some leguminous plant the fall preceding. This furnishes the organic matter and adds to the store of available nitrogen so necessary in the production of a Potato crop. The main feature to be followed in the preparation of the seed bed for Potatoes is to avoid compacting the soil as much as possible. The land should always be plowed deep and a mulch maintained at all times to maintain the moisture content.

**PLANTING**—The rows should be laid off as close together as possible without interfering with horse cultivation, and the seed pieces should be dropped in furrows seven or eight inches deep made by use of a single shovel or some such similar tool. The pieces may be dropped by hand in the open furrow or the Potato planter may be used, dropping and covering the seed pieces at one operation. The time of planting varies with different localities and with different varieties. The general rule to follow is to plant at such a date as to bring the stage of growth during which the tubers are rapidly developing at a time when there is ordinarily an adequate supply of moisture. Many experiments have been made to ascertain the best depth for planting, and it has been found that planting to the depth of four inches has given the best results. The amount of seed necessary for an acre is any where from 12 to 15 bushels, but the amount of seed required varies according to the ideas of the grower with reference to what size the seed should be cut.

**CULTIVATION**—Potatoes are usually cultivated four or five times, giving the last cultivation just before blooming. The last cultivation should not be too close to rows nor too deep as the Potatoes have begun to form.

**HARVESTING**—Potatoes that are grown on a large scale are harvested by means of a Potato digger, but the practice among the smaller growers is to either plow them out and pick them up by hand or else throw them out by means of a lister.

**MARKETING**—Potatoes are usually marketed through a commission firm, but in recent years Potato growers' associations have been organized. Where these organizations are located the farmers handle their own crop and secure good prices for them.

### Seed Potatoes by Mail

Nice, smooth, medium Seed Potatoes of any of the varieties listed, by mail, at 20c per lb.; 3 lbs., 50c.



## Suggestions for Ordering

Use the Order Sheet and printed envelopes. Will be pleased to furnish you extra sheets at your request.

**Always Keep Copy of Order**—Sign your name plainly and be sure to give your post office, county and state. If your freight or express office has a different name, do not fail to give it also.

**Terms Cash**—We are reliable; you can send your remittance by P. O. Order, Bank Draft, Express Order or Registered Letter.

**Seeds by Freight or Express**—We secure for you the lowest freight or express rate, and you pay the charges on receipt of the goods. We have a big advantage in saving our customers money on transportation charges when goods are shipped. We send shipping notice and bill of lading of freight shipments, signed by agent, showing the goods were delivered in good condition.

**Prepaid Railroad Stations**—If your own station has no agent and is merely a milk or flag station, it is important that shipment be sent to the nearest station that has an agent. This will protect you from delay. Shipments are held when billed to a prepaid station unless freight is fully prepaid, and should we find your station a prepaid point we reserve the right to bill shipment to the nearest open station. We would urge you not to have shipments sent to prepaid stations, as there is often danger of seeds being thrown off in a rain and damaged or some one takes them before the owner learns of their arrival, when there is no agent to look after it.

**Important**—It sometimes happens, though very seldom, that an order is lost in coming to us; or the goods in going to the customer. If you do not hear from us in a reasonable length of time after ordering, send us a duplicate order, naming the date on which the order was sent, the amount of money enclosed and in what form remittance was sent. We will then investigate the matter and if we find that the order has not already been filled the duplicate order will go forward at once.

**Special Express Rates**—Seeds of all kinds take a much lower express rate than regular merchandise. Being 25 per cent less this reduced rate applies to seeds of all kinds. It does not have to be prepaid, but is the same whether paid at this end or that.

### Free Samples

Always remember that it is a pleasure for us to furnish you samples of any variety of seed that you contemplate buying, for we know that our seeds will speak for themselves, so any time that you are in the market do not fail to write us for samples and prices.

We guarantee all our seeds to be as the sample represents them, and we know that they will please you. We often have on hand odd lots of seed upon which we are able to make you a special price and in case you secure a sample of one of these which you wish to purchase, you should order at once, as these odd lots are usually picked up in a very short time.

### Substitutions

Our rule is not to substitute unless we are given permission to do so. We would suggest, however, that customers name a second choice, in case we are out of variety ordered. We are amply provided with large quantities of everything on the list, but may run short on some before the season is over, as the demand for certain articles is frequently larger than we could anticipate.

### We Guarantee Safe Arrival

We fill all orders promptly and guarantee safe arrival of all shipments. If you do not specify which way to send your seeds we use our best judgment. In case of lost shipment, we either refund money or refill order and file claim ourselves. We protect our customers in every way possible.

### Freight Rates

Don't let freight charges worry you, because whether you buy from us or your home dealer, you pay the freight and you pay no more than your local merchant. Less than 100 pounds is charged at the 100-pound rate, so order enough seed to cover a minimum shipment. Freight is not as high on seed as on merchandise, so don't let a little freight stand in the way of your ordering.

### A Word About Prices

At the time we send our catalogue to press the market is always in somewhat of an unsettled condition, so it is hard to tell what values will be on most things, so instead of placing our prices high enough so that we know we will be safe, as most seedsmen do, we put our prices on all varieties on a very close margin and should our present stock, which we have bought to meet these prices, become exhausted and the market be such that we cannot replace at these prices, we reserve the right to refund your order or get a confirmation from you to ship at present values. Most of our grass seed is not priced in our catalogue, but we will inclose a price list at the time of mailing and keep you posted on values at all times. It is our purpose to work with you in any way that we can and any time you want samples and prices, let us hear from you, for it is always a pleasure to show you the wonderful values which we are able to offer you.

### Instructions for Securing Club Orders

Write us for extra catalogs to distribute among your neighbors, and for our Special Club Order Blanks.

We are always willing to furnish you samples of any variety of seed which you want, and if you so desire, we will write the parties and explain how you can save them money. In fact, we are at all times willing to help you in any way that we can to secure these Club Orders, for we sincerely believe that you are not only enabling us to secure a larger volume of business and securing a profit for yourself in securing the "Profit Sharing Certificate," but that you are doing your neighbors a real benefit by securing for them the best seeds at the lowest price.

## CAUTION—ORDER EARLY

### American Mutual Seed Co's. Planter's Reference Table and Index

	Quantity Per Acre	Lbs. Per Bu.	Page		Quantity Per Acre	Lbs. Per Bu.	Page
Alfalfa .....	12 to 15 lbs.	60	12	Lespedeza .....	15 lbs.	30	10
Alsike .....	6 to 8 lbs.	60	11	Meadow Fescue .....	1 bu.	28	27
Alsike and Timothy .....	12 to 15 lbs.	50	24	Millets .....	1 to 3 pks.	50	44
Barley .....	2 to 2½ bu.	48	33	Milo Maize, Broadcast .....	1½ bu.	60	43
Buckwheat .....	½ bu.	52	43	Milo Maize, Drills .....	6 to 8 lbs.	60	43
Blue Grass (Kentucky) .....	2 bu.	14	27	Meadow Mixture .....	1 to 2 bu.		28
Blue Grass (Canadian) .....	2 bu.	14	27	Oats .....	2½ to 3½ bu.	32	29-32
Bermuda Grass .....	5 to 6 lbs.		27	Orchard Grass .....	3 to 4 bu.	14	23
Bromus Inermis .....	2 lbs.	14	23	Pencilaria, in Drills .....	4 lbs.	50	43
Broom Corn .....	8 to 10 lbs.	52	43	Pasture Mixture, Annual .....	30 to 40 lbs.	50	45
Clover, Med. Red and Mammoth .....	8 to 10 lbs.	60	9	Pasture Mixture, Permanent .....	15 to 20 lbs.		28
Clover, Crimson .....	10 to 15 lbs.	60	10	Potatoes .....	13 bu.	60	46-47
Clover, White or Dutch .....	6 lbs.	60	10	Popeorn .....	2 qts.	56	40
Clover and Timothy, Mixed .....	12 to 15 lbs.	50	25	Red Top (Solid Seed) .....	8 to 10 lbs.	24	23
Corn .....	1 bu. 6 acres	56	36-40	Rape .....	5 to 6 lbs.	50	45
Cane, Broadcast .....	1 to 1½ bu.	50	42	Rye .....	1½ bu.	56	35
Cow Peas .....		60	19	Soy Beans .....		60	20
Canadian Field Peas .....	1½ to 2 bu.	60	42	Sudan Grass, in rows .....	4 lbs.	50	41
English Rye Grass .....	2½ bu.	24	27	Sudan Grass, in drills .....	12 to 15 lbs.	50	41
Emmer or Speltz .....	1½ to 2 bu.	40	34	Sweet Clover (hulled) .....	12 to 15 lbs.	60	15-17
Flax .....	½ bu.	56	42	Sweet Clover (unhulled) .....		30	15-17
Feterita .....	8 lbs.	60	42	Sweet Corn, drills .....	1 bu. 6 acres		40
Italian Rye Grass .....	2 bu.	14	27	Sweet Corn, broadcast .....	2 bu.	46	40
Jerusalem Corn, Broadcast .....	1 to 1½ bu.	60	43	Timothy .....	10 to 12 lbs.	45	22
Kaffir Corn, Broadcast .....	1½ bu.	60	42	Tall Meadow Oat Grass .....	2 to 2½ bu.	10	27
Kaffir Corn, Drills .....	6 to 8 lbs.	60	42	Vetch .....	1 to 1½ bu.	50	18
Lawn Grass Mixtures .....	2 to 5 lbs.		28	Wheat .....	1½ bu.	60	35





# THE Neighbors Talk About Us

## Says Oats Will Make a Bumper Crop and Thanks Us for Dividends Received.

Kendall, N. Y., July 23, 1917.  
I received your checks for the dividends on my certificates, and I thank you very much for the same. The seed was very satisfactory and the new seedling is fine at present. The Oats I got of you look as though they would make a bumper crop, although sowed late. Thanking you again for the dividends, I remain,  
JUDSON SMITH.

## Greatest Satisfaction at Momence.

Sterling, Ill., August 2, 1917.  
My dealing with you this year has given myself and my manager at the Momence farm the greatest of satisfaction. Let me assure you of our continued patronage when we are in the market for seed in the coming years.  
Sincerely,  
A. W. OTIS.

## Grange Secretary Says that All Like Our Seed.

Berlin, Pa., July 9, 1917.  
I want to inform you that my patrons speak very highly of the quality of seed and the manner of germination of same. Thanking you for your personal interest and trusting in future patronage, I am,  
H. W. KNEPPER.

## Customer Secures Profit Sharing Certificate and Says All Are Well Pleased.

Waterloo, Iowa, July 31, 1917.  
Thank you very much for money you sent on the Profit Sharing Certificate. The seed I bought this Spring looks fine. It is a fine stand at present. It is dry. We are all hoping for rain. You will get an order again this Winter. Everybody seems to be well pleased.  
W. S. BROWN, R. R. 1.

## Customer Gets Up a Club Order and Secures Profit Sharing Certificates—Wants Prices Early.

Burke, N. Y., Aug. 6, 1917.  
Received your checks all O. K. and was very much pleased. Will try and do more business next Spring. Send me your seed prices early, I remain,  
J. J. PATTERSON.

## Customer Secures Cutting of Alfalfa the First Year and Thanks Us for His Share of the Profits Sent Him.

Withers Mill, Mo., July 21, 1917.  
I received your check. Many thanks for same. My seeds received from you did fine. We got a fine stand, and on the Alfalfa we have cut one nice crop of hay, and expect to cut another. Wishing you success and again thanking you for favors, I remain as ever,  
WILL IHRIG.

## Clover Stands Above His Knees—Wants Price List Early this Year.

Wattsburg, Pa., R. F. D. No. 3, Aug. 25, 1917.  
I have delayed writing to you, received the check O. K. Very kind in sending it. I have the finest crop I ever had. The clover stands above my knees and the others that got seed of me is good, next year I think I can give you a larger order so send me prices early in the new year.  
L. H. SELTER.

## Customer Likes to Buy Her Seed on a Profit Sharing Plan.

Fostoria, Ohio, R. R. No. 6, Aug. 8, 1917.  
I was certainly pleased with the check you sent me and wish to thank you for same. This is surely a dandy way to do business for the buyer at least. I do not know how much seed we will need another year. Our Sweet Clover is looking fine. My tenant thinks we will get 2 or 3 ton of hay per acre this Fall. I have out 12 acres. Thanking you for past favors, ever, your friend,  
MRS. JULIA RUCKMAN.

## Customer Writes that Our Seeds Win the Premiums at the Fair.

Georgetown, N. Y., R. F. D. No. 1, Aug. 26, 1917.  
It is with great pleasure to let you know that my Spring Rye (seed bought from you) got First premium at our County Fair at DePruyter, N. Y., 1917. I planted it without any fertilizer and speaks for itself about the good quality seed.

My wheat got 2nd prize. All your seed I bought from you matured very nice. Thanking you for your dandy seeds, respectfully,  
ANDREW VANDERBOOM.

## Never Saw a Better Stand of Clover.

Cambridge, Ill., July 19, 1917.  
I have your letter of July 16th enclosing Profit Sharing Certificate covering goods purchased of you last season. I was at one of the farms this morning and they were commencing to cut barley and I never saw a better stand of clover. Thanking you, I remain,  
FRED B. HAND.

## The Closing Words

We have tried hard to place our seeds before you in this book so that you could make your selections to the best advantage to yourself. We are rather proud of this book, the splendid photos true to life, the printing, the descriptions, and above all, the splendid information as to culture, time to sow and plant the different crops. In fact, we believe that it contains a rich fund of valuable information that cannot help but be of great benefit to every up-to-date, prosperous farmer.

This seed guide contains nothing but practical facts taken from the actual experience of the best authorities on the different crops, and you cannot go wrong if you follow its teachings. We hope that you have enjoyed reading it and that you have obtained such help and information from it as will help make you a better farmer and bring you greater returns.

Now, my friends, the most important thing for both of us is for you to send us your order for your seeds. Give us a chance to prove to you that our seeds will produce bigger and better crops than you have been growing. Let us have the opportunity to show you how much money we can save you on your seed purchases. Our seeds are meeting with universal satisfaction and we know what they have done for others they will do for you.

Our plan of saving the seed buyer money is working out exceptionally well and hundreds are taking advantage of our Co-operative Profit Sharing Plan. We want to count you among us in the round-up, so do not delay, but get your order to us as soon as possible. Seeds are usually lower in price early in the season, and as our prices are very low we wish to urge you to not delay but order at once. Get your order to us while our large stocks are intact, while we can give you the best service, and while we can protect your order with the extremely low prices we have made you. We want your co-operation and help, and you will find us ever striving to save you money on every purchase, and we feel that you should not only send us your own order but get your friends to order with you so that you can secure a Profit Sharing Certificate. You will then not only be saving money on your own order, but doing your friends a real service in getting them to grow bigger crops. Do not delay ordering, as this is your opportunity to save money on your seeds and absolutely take no risk, as our guarantee fully protects you. We want your business and are willing to allow you a share of the profits of this magnificent, exclusive Field and Grass Seed Business to get it.

Are you with us?





A GOOD CROP OF SWEET CLOVER  
THE GREAT SOIL BUILDER



ALFALFA THE GREAT MONEY  
MAKING HAY CROP



ALSYKE AND TIMOTHY MAKING 4 TONS PER ACRE



LOADING ALSYKE AND TIMOTHY  
ON AN ILLINOIS FARM



SWEET CLOVER PRODUCES  
BIG CROPS OF HAY



A BIG CROP OF MAMMOTH CLOVER  
ON THE FARM OF ONE OF OUR CUSTOMERS

ALSYKE AND TIMOTHY PRODUCE WONDERFUL CROPS OF BOTH HAY AND PASTURE